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ABSTRACT

This is a compilation of articles examining many aspects of differentiated staffing and creating a basic document for all school districts. The articles are grouped into seven sections: 1) "Why Change?"; 2) "A Consideration of Staffing Problems"; 3) "Critics and Crusaders: An Analysis of Differentiated Staffing" (subsections on concept and commentary); 4) "Personnel Considerations" (subsections on the teacher and his staff and the principal's task); 5) "Restructuring the Training Sector and the Certification Problem"; 6) "The Idea in Practice--Two Models" (subsections on the implementation of differentiated staffing, Temple City and Kansas City); 7) "Proposals for Differentiated Staffing." A section on reference materials includes a full report on the Differentiated Staffing Conference held in Geneva, N.Y., February 26-28, 1969; a brief listing of films and video tapes; a definition of terms used in the document; and the reprint of an article, "Differentiated Staffing: The Second Generation by Peter B. Mann." An extensive bibliography is appended. (MJM)

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DIFFERENTIATED STAFFING

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FOREWORD

This book is a cooperative venture between two members of the Regional Center network, which is part of the Center for Planning and Innovation, State Education Department of New York. It deals with a problem that spans every aspect of education--staffing.

Among the many innovations and changes being examined in depth or being implemented in districts all over the nation, none seems to attract as many questions or contain as many ramifications as differentiated staffing.

Because of this, ECCO (Educational and Cultural Center serving Onondaga and Oswego Counties), decided last year to gather the material on this subject published during the previous eighteen months. Patricia J. Hallock, associate for information resources and services, coordinated the extensive research done by the ECCO staff; publishers, districts and innovators were all contacted and proved to be exceedingly cooperative in submitting materials. In fact, almost twice this 624-page volume was on tap before we entered the second phase of putting out the book.

To do the dissemination, the expertise and facilities of the Nassau Regional Office for Educational Planning were called upon. Editorial supervision, design and planning were done by Arlene B. Soifer, staff assistant, with Carolyn S. Sanzone handling the many details involved in culling and arranging the voluminous sources.

It is hoped that this considerable expenditure of time and effort by professionals in two regional centers will result in a useful, basic document for all school districts. We look forward to preparing an updated edition in the future as implementation of the concept of Differentiated Staffing goes forward around the country.

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(ECCO)
Central New York Regional Office
for Educational Planning
Onondaga and Oswego Counties

Jack Tanzman, Director
Nassau Regional Office
for Educational Planning

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WHERE ARE WE GOING AND HOW CAN WE GET THERE?

Kevin A. Ryan

Educators today have the responsibility to shape the teaching profession. In twenty-five years American education will be in the hands of our students. There can be little doubt that our vision, or lack of it, will have profound effects. It would seem useful, therefore, to project our thought to the future, to extend some of the current pioneer efforts to hypothetical fulfillment.

Prophecy is the occupation of wise men and fools. While I seriously doubt that this discussion of the schools and the profession in twenty-five years will qualify me for the first group, the wise men, I hope it will not mean that I have cast my lot with the fools. I submit this potpourri of predictions and premonitions well aware of the vagaries of history. Much happens in twenty-five years. Who among us in the year 1943, as we listened at our radios to Fibber McGee's closet crashing in on him, would have fortold the coming of "Petticoat Junction" in living color? When the zaftig Sophie Tucker with plunging neckline was before the nation's eyes, who would have anticipated Twiggy in the mini? In 1943, when the Brooklyn Dodgers were the kings of Flatbush Avenue, who would have predicted that one day they would be playing in the smog of Los Angeles? And who, twenty-five years ago, would have thought that the tinkerings of a few scientists in an abandoned squash court at The University of Chicago would thrust us into a new era, the Atomic Age? We can be certain, then, that by 1993, the world will have pulled a few surprises on us.

Before trying to read the fortune of the future, let us see what the tea leaves of the present tell us. What is the current mood of educators? For one thing, the old egg-carton school building, with its standardized classrooms and standardized teaching, is passing. With it is going the school day dominated by the bell signaling the beginning and the end of neat slices of time--45- or 50-minute packages of knowledge to be uniformly consumed by all. We are being forced to abandon the belief that children learn best in classrooms of twenty-five or thirty pupils and in quiet libraries with quiet books. We are moving away from the idea that education is something that a teacher does to a student, something he impresses on a child, like Mr. Lock and his tabula rasa. We are rejecting the notion that all children, even within the same track, should receive the same information and training and proceed at the same rate. Although there are still great counter-pressures, there is a growing disaffection with the principle of solving the problems of American education by programming the children with more and more information. We are becoming vividly aware that we are not providing equal educational opportunities to our minority groups and that we cannot survive as a free society without quickly and dramatically eradicating our present inequalities.

At the same time that we are rethinking the education of children we are rejecting the idea that we can train teachers for today's classrooms using the same old mold and the same tired formula. We are doubting that our present organization of the profession is adequate. We are recognizing that our traditional job description for the classroom teacher is unrealistic and unworkable. We are leaving behind all these ideas and structures because we are discovering that even our more intense efforts of the last ten years are fundamentally bankrupt. We have been getting better and better at preparing children for a world which no longer exists.

Where Are We Going?

The School of 1993

What, then, will replace our assembly-line schools? What follows is an admittedly optimistic view of the 1993 schools. Although I make the predictions with great hesitation, I am firm in the belief that on some cold winter's night in 1993 these predictions will provide some diligent graduate student reviewing the history of TEPS with a good laugh.

Franklin, I have no idea what the schools of 1993 will look like from the outside or how the bricks and mortar will be arranged. Some may be housed in huge skyscrapers. Some may be in educational parks, miniatures of our present college campuses. More intriguing, however, is what they will look like on the inside. My guess is that there will be much more open space. Students will move about quite freely. There will be much less structuring of time than at present. Right now, regimentation is necessary because we are unable to truly involve students in the essential task of the schools--learning. Once we are able to stimulate students and sustain involvement, regimentation will be dysfunctional and will pass away. The maintenance of the student's high interest will be a major operating principle. The child's natural curiosity will be king and carefully nurtured. The schools of 1993 will be imbued with respect for human diversity and originality. The curriculum will finally become a careful and rational order of learning experiences. Like regimentation, grades, too, will be dysfunctional and pass away. Our present grading practices will be looked upon by future generations as we now look upon duncecaps or perhaps even thumbscrews.

To foster deep involvement, much of the school will be devoted to learning environments toward which the resource centers of our most advanced schools are just beginning to move. Professionally produced films and tapes on almost every subject will be available for individual or collective viewing. Students will have at hand materials and equipment for all sorts of projects, whether it be re-creating the life of the Pilgrims in New England or simulating the life of the first residents on the moon. Much of what students struggle to master now will be learned through games. It does not seem too far-fetched to suggest that children will learn languages through conversations with other children in distant countries. A child may have a Telstar pal in Paris and another in Peiping and daily talk to each using his video phone. To counteract life in the man-made environment that is concomitant with urbanization, students will spend a good deal of time on field trips which occasionally will be in quite distant and exotic places. Where better to get the total impact of Greek culture than in Athens?

The student will do much of his exploring of the world in school, however, at his computer-information bank console. In terms of increased learning, computer-assisted instruction (CAI) will be the real breakthrough. By 1993, the present computer consols being used in the Suppes-Atkinson project at Stanford[1] will be museum pieces, viewed with the same curious affection which we now have for the Model T Ford.

Today, as I read about CAI in the educational journals, I get the feeling that the teaching profession is being handled rather gingerly, that the CAI people are employing a soft-sell approach. One gets the impression that they are selling a new detergent. CAI is represented as being a wonderful new formula that will take the drudgery out of teaching and do the dirty work, such as basic instruction and drilling in the skills of reading, spelling, and arithmetic. A truer analogy may be to a completely automated household that will leave the housewife with little to do except wonder about her fate. We are being sheltered from the great shock that the self-pacing, individually focused CAI units may be able to teach everything from the ABC's to metaphysics, from addition to the newest science, with greater efficiency and effectiveness than most fine teachers. I am talking here about CAI units that act as individual tutors, that contain all the knowledge and theory developed by mankind; computers that are programmed with all we know about learning theory and put it into practice, that are programmed with all the learning characteristics of each student and operate from up-to-date profiles of the skills and knowledge of each student. It is expected that these CAI units will be programmed to teach not simply skills and information but also the important intellectual processes. Given the assumption that these units will be continually pacing the student at his maximum level and thereby cutting out all needless repetition and relearning, it does not seem unreasonable that in two or three hours a day at his console the student will be learning three or four times what he is presently learning in school. In brief, we may have the educational ideal of the student at one end of the log, and instead of Mark Hopkins at the other end, we will have the IBM Mark 93.

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[1] Suppes, Patrick. "The Computer and Excellence." Saturday Review 50: 46-50; January 14, 1967.

Many of us are uneasy with the idea of children spending huge amounts of time interacting with computers. Some feel that the experience will be dehumanizing and that the educational process will become depersonalized. Although this is a very real possibility, I am sure that the same thoughts were stirred by the advent of the book. Too, we should keep in mind that much of what is at this moment going on in our classrooms is dehumanizing. Besides the legions of students who are bored with the content and pace of instruction, there are many who are being left behind and cast aside. For many students our traditional classrooms are prisons where they are fettered by frustration and ignorance. However, we still have ahead of us the important task of harnessing the computer. As John Goodlad of UCLA pointed out recently, it is our challenge to "find out how human beings and machines are to live together productively in tomorrow's learning-teaching environment."[2]

A major benefit of the new efficiency that will come with computerized instruction is more time--time to develop the student's social, moral, and aesthetic dimensions. Students at all grade levels will have much more time to work and play together. It is hoped that the distinction between these two words, work and play, will be lost in the process. Although much of the student's day will be spent in a variety of different groups, all students will be involved continually in independent study. Right now, independent study is like international peace: everyone is for it but no one can quite bring it off. Further, all students, not simply the athletically gifted, will have more training in how to use their bodies. In the present school curriculum there is little room for the dance, for singing, for artistic expression generally. In the school of the future, much of the day will be devoted to those often overlooked but most humanizing activities.

The New Teacher

If we are to have a new school in 1993, we will need a new teacher. Of this one thing we can be sure. The role of the teacher as we now know it will be changed drastically. With the coming of movable type and the easily accessible book in the fifteenth century, the teacher no longer had a monopoly on knowledge. His role as total source of knowledge was severely altered. The technological revolution taking place in the schools today will demand a change of teacher role of an even greater magnitude, and this is happening already in many schools. In 1993, many of the present roles performed by teachers, such as information dispenser, drillmaster, disciplinarian, money changer, record keeper, and grader, will have vanished or will have been taken over completely by paraprofessionals.

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[2] Goodland, John I. "The Future of Learning and Teaching." Address delivered at the inauguration of Sam M. Lambert as executive secretary of the National Education Association, Washington, D. C., October 20, 1967. Los Angeles: the author, 1967. p. 9.

What, then, will be the teacher's role? One possibility is that, whereas we once had teachers functioning as entire instructional systems, in the future the teacher will be the director of an instructional system.[3] He will have at his disposal many instructional aids, such as simulators, programmed materials, video tapes, films, and computer-based learning systems. As director of a large system, the teacher will have to be a skilled diagnostician, aware of the abilities of the students and the potential contributions of each component in his system. Since different students have different learning styles, the teacher's main task will be to apply the systems with intelligence and sensitivity. In doing this, he will be supported by many specialists and paraprofessionals who will be working directly with children. Bruce Joyce[4] has developed this idea quite fully.

As the teacher assumes the role of director of an instructional system, he is going to need specialized help. At present, there seems to be three groups of specialists that will support the teacher, three additional role groups that will be added to the school.

The first group we will call inquiry specialists. These people will be highly, perhaps narrowly, trained to aid children in mastering specific inquiry skills. Examples of some of these are specialists in search skills and problem solving, specialists in group discussion, specialists in learning games and game theory. While many of these specialists may be linked to a particular discipline, many cut across several disciplines, being essentially process specialists.

The second role group will be that of therapy specialists. I am not speaking here of what we presently refer to as counselors, professionals charged with vocational and academic guidance. That role, too, may pass in the age of the computer. In 1993 we will know much more about mental health and human relations. The whole area will become much more important if we are to keep civilization from falling apart. Therapy specialists will work with the instructional staff to improve the social climate of the school. Their major task, however, will be to help individual children gain a greater insight into and control over their own behavior.

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[3] Allen, Dwight W., and Ryan, Kevin A. A Perspective on the Education of Teachers in California in 1980. Project 1.2 Teacher Training, State Committee on Public Education. Sacramento: California State Department of Education, November 1966. pp. 31-32.

Joyce, Bruce R. The Teacher and His Staff: Man, Media, and Machines. Washington, D.C.: National Commission on Teacher Education and Professional Standards and Center for the Study of Instruction, National Education Association, 1967. 28 pp.

The third group will be scholars and researchers, people who are working at the frontier of knowledge but who are also working in the schools at all levels. Right now there are relatively few people working on the edge of knowledge. In twenty-five years we can expect two things: a larger frontier of knowledge and many more people engaged in scholarly pursuits. These scholars-researchers-teachers will relate to schools in many different ways, depending on their own abilities and desires. Some will help guide independent study projects. Others will guide group projects which will often further their own research. Some will teach in settings that look very much like our present advanced doctoral seminars. Few, however, will spend more than ten or fifteen hours a week with students. The schools will share many of these scholars with industry and research centers.

All three of these role groups will share in the teacher's traditional role of model for children. However, in the school of the future, the professional staff--the process specialist, the therapist, and the scholar-researcher--will be chosen especially because they are examplars of man at his finest, man striving to know and to love.

There is one group of teachers who will be immensely important in the 1993 school and who have yet to be mentioned. I am speaking of the students. Much of the instruction and supervision of children will be done by other, slightly older children. This will be done, not for economy, but because we will put into practice what every teacher knows--that one of the best ways to learn something is to teach it. Learning by teaching, a very slight variation on Mr. Dewey's theme, will be a major cornerstone of the schools.

How Can We Get There?

Here I am going to retreat from these somewhat heady heights to which many may not wish to go. I would like to move into another area where many will also object to traveling.

The Structure of the Profession

Few people are satisfied with the way we have structured the elementary and secondary segments of the teaching profession. What appears on the surface to be a neat, efficient, and egalitarian system reveals several severe internal problems. For one thing, there is no career line for the classroom teacher. Teaching is a one-step career. Excellence in the classroom is rewarded by promotion out of the classroom, away from children. One type of promotion in high schools is to department chairman. This means the gifted teacher teaches fewer students and gets to open the mail from the book companies. Also, he is expected to supervise other teachers, a job for which he is rarely trained and for which he may have no interest or aptitude. Another type of promotion is to administrator, which means he teaches no children. And, of course, there are those, many of the best, who promote themselves out of teaching completely.

Another problem is related to the job requirements. We give a freshly certified 21-year-old the awesome responsibility for the learning of large numbers of children for an entire year. We expect him to be highly skilled in all aspects of teaching, from control of content to human relations, from motivation to evaluation. And then we expect him to spend the next forty years of his life carrying out essentially the same responsibilities. This seems to be an unrealistic demand on the beginner and a deadening prospect for the experienced teacher.

Still another problem in the way we structure the profession is that we make little room for individual differences. It is odd that we teachers, who are continually faced with individual differences, have no way of acknowledging them in our profession. The individuals who come into teaching bring with them different talents, different weaknesses, and different interests. Nevertheless, we insist that all teachers be all things to all children. Instead of tailoring the teaching assignment to an individual, we tend to force all teachers into the same, easily interchangeable molds.

At the inauguration of NEA Executive Secretary Sam Lambert, Harold Howe put several questions to the teaching profession, two of which bear directly on its structure. Howe asked, "How can we get the teaching profession to develop a hierarchy within its ranks? How can the profession be encouraged to adapt the best aspects of a system that obtains in colleges and universities, where the strongest teachers receive larger responsibilities and larger rewards?"[5] One answer to these questions and our present difficulties is a differentiated teaching staff. The differentiated teaching staff is based on the idea of human differences in intelligence and commitment and the observation that presently there are many roles assumed under the name "teacher." A differentiated staffing system replaces the system in which all teachers carry out the same responsibility for the same reward. Although many schools have made moves toward staff differentiation, I

Commissioner Howe Asks Probing Questions of NEA." NEA Reporter 6:4; November 10, 1967.

know of none that have such a daring plan as the one devised by the teachers and administrators of the Temple City, California, schools.[6] The teaching staffs of the Temple City elementary and secondary schools are restructuring themselves into four different categories of teachers. To the four teacher categories are being added academic assistants, educational technicians, and various types of paraprofessionals. Each of the four teacher categories has a different job definition and salary scale and calls for different competencies. While all will be classroom teachers, much more in terms of time and effort and leadership will be demanded of some. People in higher categories will be responsible for long-range planning in curriculum and instruction. Some will have major responsibility for in-service programs. Others in lower categories will have more restricted requirements, frequently acting as team members. The range of competence and responsibility is reflected by the salary scale that starts at $6,000 and reaches $24,000.

The differentiated teaching staff would appear to have several advantages. First, it provides a career line within teaching and hopefully will keep the brightest and most able teachers in classrooms in front of children. It does not seem unjustifiable that the outstanding teachers in the school should receive salaries comparable to those of the top administrators. Second, the differentiated teaching staff is designed to make the best use of each teacher's talents, especially by providing more opportunity for specialization. For example, the teacher who is especially gifted at small-group instruction will spend the major portion of his day in this activity. Also, he will be provided with free time to work with other teachers who are attempting to develop the skills involved in small-group instruction. Third, such a staffing arrangement will allow for leadership within the teaching staff. Excellent teachers will have a wider channel for influence, both with students and with colleagues. Fourth, the development of a hierarchy among classroom teachers undoubtedly will lead to teachers having a greater share in decision making. Although the demand for a greater voice in decision making is somewhat new, it seems regrettable that so often the demand is only in the areas of salary and benefits. The faculty of a school with a differentiated approach to its teaching staff will have a voice in policy making in all areas. Incidentally, at Temple City the teachers are structuring themselves into an academic senate similar to the university model.

We should bear in mind that the differentiated teaching staff is a new, untested idea. Although it appears promising, it will have to be applied in many different settings and studied carefully. We can, of course, be confident that it will not solve all our problems. However, it may solve many of them and lead toward greater professionalism in teaching.

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[6] Allen and Ryan, op. cit., pp. 23-30.

The Preparation of Teachers

Another area to which we must give special attention if we are to get to our school of the future is the preparation of teachers. Few of us, whether involved in undergraduate or graduate programs, are satisfied with the current results. Certainly, we have no dearth of critics to keep us humble. It is quite possible that one major source of our trouble is that we have patterned teacher education on the wrong model. Much of what is done in America to train teachers fits what I call the exposure-immersion model. I am speaking here of the professional component, not the academic component. In order to prepare students for the active role of teacher, we expose them to a series of education courses. The teacher-to-be is the passive recipient of information about children and teaching. After passing the paper-and-pencil examinations which are supposed to indicate that he can do all the things covered by the courses, we then immerse him in the active role of teacher. All of a sudden the student teacher or intern must stand before thirty or so children and translate all the passive preparation into skillful action.

Passive exposure and complete immersion! It is a minor miracle that so many can survive. One wonders how such a questionable preparation model ever got started. A possible explanation is that when teacher education was absorbed into colleges and universities some sixty or seventy years ago, it conformed to the prevailing patterns of these institutions. Except for student teaching, the preparation for teaching was treated like preparation in mathematics or English literature. Formal, and essentially passive, courses became the dominant mode. I am not suggesting that there is no place for formal course work in teacher education, rather that there is much more to be done. If we are truly to prepare our teachers-to-be for the complex, active role of teacher, there is a whole fabric of training experience that must be woven. These experiences should be a bridge between foundations courses and student teaching.

Some of these training experiences and activities are as follows:

1. Paraprofessional Services. For example, the college student takes over hall monitoring or other supervisory duties for teachers. The main idea is to put the college student in contact with youngsters, but in a new relationship, one in which he has adult responsibilities.

2. Resource to Students. In this role the beginner is assigned to a library or to a study area simply to be a resource for students. With a little training, most college students could be quite helpful to lower-school students, getting them started on library projects or helping them with certain study skills.

3. Teacher Aide. Here the beginner is assigned to a teacher or

a team of teachers. He is put in a working relationship with experienced teachers and is given the opportunity to observe and study the teacher role he is planning to assume. Such exposure to teachers and education-on-the hoof should provide experiences that enrich his education courses back on the campus.

4. Teacher Simulation Exercises. Here I am thinking of the simulation exercises developed by Donald Cruickshank of the University of Tennessee. Trainees learn about a hypothetical class and school. Then they attempt to solve common teaching problems in role-playing situations. In a safe, simulated situation they learn many of the complexities of the teacher role, for instance, how to cope with irate parents.

5. Clinical Exercises. These exercises normally would take place in a school and can be quite varied in nature. For example, one such exercise might be having a trainee sit in on a class with the express purpose of identifying and closely observing an inattentive student. He records the student's behavior, makes some guesses about his achievement and social adjustment, and after class checks his perceptions with the teacher. Later these experiences are discussed back on the campus.

6. Tutoring. Here the beginner works with one student for several weeks. His assignment is to identify the student's learning problems, plan and execute a program of remediation, and finally, evaluate the success of the program. Not only does the future teacher have close and prolonged contact with one student, but he also is forced to do some hard thinking about the learning process.

7. Microteaching. Microteaching is a practice setting for teaching. The trainee teaches brief lessons to a few students and then gets feedback from several sources: the students, a supervisor, and video tapes of his performance. Usually in microteaching the trainee practices specific technical skills of teaching, such as controlling student participation or asking open-ended questions.

There is nothing new about this list of training activities and exercises. Although I know of no program that does not at least suggest to its students some of these activities, I know of no program that does not at least suggest to its students some of these activities. I know of no program that uses the full range. Finding time in the curriculum seems to be the big barrier. Each year the total undergraduate curriculum gets more crowded. Greater and greater demands on students are being made. At the present time it may be totally unrealistic to think that we can prepare a liberally educated individual and a highly skilled teacher in the normal four-year period. I am not necessarily advocating fifth-year programs. There are problems here, too. Rather, I am suggesting the adoption of five-year programs in which liberal arts study and professional education are integrated over the entire five years. This would give future teachers ample time to work in schools and go through the type of training activities mentioned above. At the end of his fifth year, the student would receive his baccalaureate degree, certification, and be well on his way toward an M. A. in education. Of course, the time could be shortened for those who choose to study during their summers. It seems clear, however, that the level of education and professional preparation demanded of the new teacher cannot be met in the traditional four-year sequence.

Let us turn briefly to in-service training. Today the culture is changing with increasing rapidity. Knowledge is expanding and being redefined daily. However, teachers, whose role is the transmission of the culture and the dissemination of knowledge, have the meagerest opportunity to keep pace. We hear a great deal of talk about the teacher as continuous learner, but little provision is made for this slogan to become a reality. It is little wonder that commentators like the mythical J. Abner Peddiwell of Saber-Tooth Curriculum[7] fame and Marshall McLuhan,[8] the newly discovered prophet of the age, have faulted the schools for being irrelevant to the world in which children must live. If we are to have relevant schools, surely we must find new ways to keep teachers from falling behind the advances in both their fields and pedagogy. We not only need new ideas, but we will have to commit to this effort much more time, money, and energy. On this score, education can learn a great deal from the military and industry. The armed forces are continually retraining their personnel, not only through combat exercises, but also through a vast network of schools. The major industries, too, are allocating large portions of their annual budgets to education. IBM is said to be presently devoting 30 percent of the time of its employees, from executives to technicians, to training and retraining.

Although there are numerous approaches to the teacher obsolescence problem, there are two I will consider briefly. One is external to the the ongoing school and the other is internal. The first approach is to develop a wide variety of retraining programs away from the school. Given the present need for highly qualified teachers, it does not seem unreasonable that every four or five years teachers return to the universities or special centers for a semester or perhaps a full year of advanced work. Also, the summer institute program should be expanded for many more teachers and for teachers of all subjects and all grade levels. These opportunities should be opened up particularly to the career teacher who has made a definite commitment to classroom teaching. Teachers should be able to attend without having to make any more financial sacrifices. We can learn from the recent experience in Japan that has helped to revolutionize the teaching of science there. To keep teachers abreast of the developments in the teaching of science, the Japanese have formed local science education centers that draw teachers out of the schools and retrain them for periods from as short as one week to as long as a semester. Almost all of what is studied at these centers is immediately applicable when the teachers return to their classrooms.[9]

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[7] Benjamin, Harold. The Saber-Tooth Curriculum. New York: McGraw-Hill Book Company, 1939.

[8] McLuhan, Marshall, consultant. Understanding Media. A Report to the U. S. Office of Education by the National Association of Educational Broadcasters. Washington, D. C.: Office of Education, U. S. Department of Health, Education, and Welfare, 1960.

The second approach to the in-service problem is internal to the school. Time for study and retraining should be built into the daily school schedule. This does not mean simply more free time or in-service courses tacked on at the end of a draining day of teaching. Time should be scheduled during the school day for teachers to come together and learn. The most logical people to lead these in-service courses would be those who have just returned from external training programs. These in-service experiences would be especially valuable for inexperienced teachers and those who have returned to teaching after raising a family.

Although the full spectrum of teacher education needs much greater financial support, particular consideration should be given to the experienced teacher. Certainly, when we consider the tremendously high drop-out rate in the early years of teaching, it is easier to understand why such a small investment is made in preservice training. What is so difficult to comprehend is why we make such a paltry investment in the training of those who stay--the career teachers.

Change in Education

Most of what I have suggested with regard to where we are going and how we can get there hinges on our willingness to change. Also, it presupposes massive change in an endeavor that traditionally has been quite resistant to change. Frankly, I think that is all over now. Change is the new reality. Change may well be the only constant in our lives. Recently, I read a report of a letter from an 80-year-old woman: "Dear Sir," she wrote, "Why do we have to go to the moon? Why can't we stay on this earth and watch television the way the Good Lord intended?" Last November, McGeorge Bundy, president of the Ford Foundation, took a different tack and stated the issue quite clearly: "We are in a grave and deepening crisis in public education. The burden of proof is not on those who urge change. The burden of proof is on those who do not urge change."[10] It is our job as educators to inform and direct this change.

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[9] Glass, Bentley. "The Japanese Science Education Centers." Science 154: 2-1228; October 14, 1966.

Although the magnitude of change being suggested calls for financial expenditures the like of which we in education have never seen, we are gathering support. People in government, people in industry, and people on the street are realizing a simple fact: We cannot afford not to change the schools. The state, whose fundamental purpose is national survival, has realized that the human mind is our basic and most valuable national resource. It looks to the schools to develop the genius and supporting talent that will solve the frightening problems that confront us. Many Washington watchers are expecting the government to pump huge sums into education once we extricate ourselves from Southeast Asia.

Industry, too, has a vested interest in the schools. It looks to the schools to provide it with the scientists, managers, and technicians to support and expand the technological society. More recently, industry has found in the schools a vast, relatively untapped market for its goods. The mergers of the "software" and "hardware" industries like IBM, SRA, GE, and Time Inc., are a powerful indication that American industry is in the schools in a big way. For many members of the business community, the words of Calvin Coolidge in the twenties, "The business of America is business," have been updated to, "The business of America is education."

The third force for change in the schools is what I have called the emerging will of the people. People are becoming increasingly aware of our potential for developing the good life. Not simply the rich life, but a qualitative improvement in the very character of life. We are slowly realizing that the new frontier is not outer space--our interest here is already wanting--but the human potential. If the civil rights struggle has taught us anything, it is that phrases like "quality education," "equal opportunity," and "the human potential," are not simply to be in the future the province of the few. The American school, which classically has been used for upward mobility, is now being viewed as instrumental in the attainment of a new good life that may well be within our grasp.

These three pressures for change in the schools--the state, business, and the emerging will of the people--are not equal. It would seem that right now we are moving faster toward a "meritocracy" that lavishly rewards those who advance the power of the state or business. However, there is something dangerous about educating people. They become dissatisfied with the merely adequate. They become critical of the imperfect. They develop new appetites. They seek new alternatives. My suspicion is that the more we educate, the more people will demand the truly humanistic education in a truly human life.

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[10] Buder, Leonard. "Debate on School Reform." New York Times, November 19, 1967. p. E11

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A POSSIBLE DREAM:
A NEW EDUCATION AND NEW MODELS OF TEACHERS

Roy A. Edelfelt

The concept of "The Teacher and His Staff" and the prospects for major changes in teaching under the Education Professions Development Act (P. L. 90-35) make a possible dream of the notions which were central to two other TEPS themes-- the concepts of "The Real World of the Beginning Teacher" and "Remaking the World of the Career Teacher." Although all old business in the improvement of teacher education and professional standards is far from complete, it is time to increase our attention to the more pervasive business of remaking the teaching profession. One way to begin is to try to analyze aspects of our culture which are relevant to education, predict developments, and anticipate the sort of education needed to serve our people now and in the future.

Even the wisest analysts and prophets are uncertain and wary when they try to interpret social developments and forecast directions which education might take. Making predictions about the teaching profession will be even more precarious, but it is necessary for some educators, however small a group, to get started. My purpose here is to help them do so, to invite bold, creative, and critical discussion and thought. I will illustrate one kind of analysis which might be worthwhile, suggest the changes for education and teachers which seem to be implied in the analysis, and finally, pose questions which seem appropriate if action is to follow talk.

The Need for a New Education

Educators operate on tacit and habitual assumptions about schools, learners, and society. Many such assumptions are no longer valid and some need new interpretation, but they still dominate educational thought and action, thus perpetuating outmoded ways of doing things which can be diametric contradictions of known facts.

Educators must engage in a vigorous dialogue to identify and examine their assumptions about schools, learners, and society and develop new understandings about what schools and teachers should be. Following are illustrations of the kinds of assumptions which might be challenged and some related ideas which could lead to very different conclusions about education.

1. A twofold assumption is that the purposes of education are to pass on accumulated knowledge and conventional wisdom and to train the young in certain selected skills, and that the responsibility for such education rests primarily with the school. People assume that educators know what should be taught and that teaching it will result in learning and that the most important learning takes place in school. The assumption is no longer valid. The purposes and sources of education are much broader than they used to be.

   Education designed to pass on the heritage of man from one generation to another may have been valid in times past when conditions of living were fairly similar for successive generations. But it is no longer appropriate in a time when conditions change so rapidly. The teacher cannot merely remember what life was like when he was in school and assume that youngsters now are having similar experiences. Childhood and adolescence today are different from those periods of life just a few years back. We need to find new ways to identify with the problems, thoughts and feelings kids have. And youngsters today learn so much outside of school that formal education no longer can claim credit for the major part of learning. There is an urgent need, therefore, for educators to devote more time to helping students learn how to learn, to conduct inquiry, to study independently, to make choices and decisions, to know themselves and others, to use technology, to live with change, and to become agents of change.

2. A second assumption no longer valid is that a free society develops with little or no planning. When the United States was a young, rapidly growing country, haphazard development may have been inevitable; but in a well-developed society with an ever-increasing population, it would be chaotic to depend merely on the desires of individual or group enterprise, whether in business, education, industry, or social development. A balance between planning and evolution is needed, a balance which provides more planning than we have had in the past and the flexibility necessary for creative evolution.

3. Another questionable assumption is that our societal organization has become static, that having progressed from an agrarian to an industrial, technical, and business society, we have reached the ultimate organization.

   Support for a static or ultimate system of political, economic, or social organization is often fostered by appeals to patriotism or nationalism and to muster opinion against other isms, primarily communism and fascism.

   A profession devoted to scholarship and objectivity in a society committed to democracy and rational thought can hardly permit acceptance of notions which crystalize system and organization prematurely. We must continually employ new knowledge for the welfare of people. We now have the technical, business, and industrial know-how to support a more humanistic society. Today's emphasis on producing goods and services, making more money, and building better machines need not persist. Developing better people, building better systems of living, making life more fulfilling and rewarding could become the primary goals.

4. Still another outmoded assumption is that puritanic mores and traditional modes of human behavior remain eternally valid and should continue to be perpetuated without much examination. Children are asked to abide by rules of behavior which are often not based on reason. Too many of these rules are advocated because they are the proper or traditional things to do. More viable standards would derive from an examined, rational, pragmatic approach to human behavior. Rules should be based on reason and humanness and be able to withstand continuous testing against current interpretations of values and recognized examples of effective behavior. This should not suggest a sentimental, permissive, or coddling approach but should permit the young a broader encounter with real problems and consequences of life at the student stage of development. It means providing opportunities for youngsters to shape the rules and standards they live by. It means recognizing that the sociology of groups--that is, the roles parents, children, teen-agers, teachers, and others play--has changed and is changing. Standards of behavior, relationships, and responsibilities of all parties in the preadult's world are constantly shifting. To avoid chaos and confusion there must be some attempt in each subgroup to agree, at least tentatively, on guidelines and understandings of acceptable behavior, but they cannot be crystalized. The balance between no rules at all and overly rigid standards is difficult to achieve, but in this time of continuous change, it is esntial.

5. There is an old assumption that subcultures within our society can be categorized into urban-suburban-rural or upper class-middle class-lower class and that the people who live in these communities or groups have unique characteristics and distinctly different problems. An obvious need is a more cosmopolitan, national, and world concept of society. We live on a planet where communications are instantaneous, where people know a lot about each other, and where there is a great interdependence of people. What the individual does, whether he lives on a farm or in the city, at home or in a distant land, may directly affect other people who live miles or nations away.

   Although we live in a stratified society, there is a tendency to overgeneralize about categories of people in terms of education, cultural sophistication, wealth, color, religions convictions, and political idealogies and to judge them by what they have and who they know rather than what they are. The willingness to overgeneralize and to support a closed system is inconsistent with American ideals and stifles progress. If pronouncements about freedom and equality are to have meaning, we need to promote a more heterogeneous, open society where an individual is judged on how adequately he fulfills his own potential and what he contributes to his fellowman, not on what position he has or what degrees he holds or what color he is.

6. Another out-of-date assumption is that careers develop along planned, predictable lines. Too often it is assumed that a person begins work in a particular field and stays in that field, that progress in a career is linear and follows a known sequence. Most careers today are not predictable; the trend is for them to be less so. A career, even life itself, must now be viewed as a flexible developmental sequence in which a person may start out with particular goals but move easily into many careers, some seemingly unrelated. This will be possible because the intelligent, well-educated man is able to learn what he needs to know, within limitations, about a new job. It will occur because some jobs are so new that formal preparation programs have not yet been developed for them. The first people in a new career must find their own way. The self-prepared will become much more commonplace, both because of rapidly developing new fields and because of the adaptability of people in a high society.

7. The traditional assumption that people are largely immobile and provincial no longer holds. People may be provincial, but much of provincialism is superficial, such as allegiance to sectionalism (Californians or New Englanders) or snobbishness as part of an in group. Ours is a national society. Much of life is national in scope. Mass media make information widely available. Almost every community has its cosmopolites. And people are certainly not immobile. The trend is clearly toward more mobility and sophistication. People will be (or should be) citizens of the nation and the world, even the universe. They must also relate to and take responsibility in the local community. The questions "Where do I belong?" and "To whom do I have responsibility?" need new answers in a highly migratory society in which few people belong to only one community. Old patterns of earning or seeking status, acceptance, and power within communities are changing, especially in new communities. The ramifications of great mobility, shallow roots, and the problems of adequate cosmopolitanism are interrelated. Though his vision is wide and his ability to travel is great, man must still have an effective relationship with and a recognized responsibility for his fellowman. What this can mean for the highly civilized American nomad is far from known.

8. Another outdated assumption is that hard physical work is right-

eous and good; that to be virtuous, work must be tough and distasteful; that work is easily discernible from play. Within this concept people are paid for the amount and quality of goods produced. New concepts of work will not necessarily equate production to compensation but may recognize accomplishments of other kinds. The person who must experience hard work or feel guilty will need reorientation. More than education of the current sort will be needed. Many attitudes about work have deep psychological and religious underpinnings. Changes in attitude will need to be developed through a pragmatic kind of thinking about accomplishments being assessed in a variety of ways. For example, it must be legitimate to regard reading a book or going to a concert as work. Such activity may be as important and require as much effort as any other kind of activity. A broad concept of work must recognize people developing in a fuller "culture." In early America most of the people were largely "uncultured" in the sense of not being conversant and sophisticated in the arts, music, literature, and philosophy. Americans are changing. There is now the prospect of a mass "culture," hitherto undreamed of, where most people live a full life, creating as well as consuming.

9. Another traditional notion is that procreation is by intention or accident, that people bear children because they want them or feel a responsibility to perpetuate the species, or that people have children by mistake. The world is becoming so heavily populated that more rational thinking about procreation seems inevitable. It also seems sure that choices in love and marriage have been based for too long on Hollywood-created myths about romance. The population explosion makes it timely to explore and consider the welfare of prospective people, to consider the possible use of science and medicine both in seeking suitable marriage partners and in producing the best offspring. Sex drives should not determine who and how many are born. Intelligence and morally acceptable behavior must become more related. When decisions such as these can be made, the individual and common good as well as civil and religious codes of behavior must be considered. Marriage partnerships and births should not be left to happenstance or accident or shotgun.

10. Still another time-honored notion is that childhood and adolescence are preparation for adulthood and magically at age 18 or 21 a person becomes an adult. One basis for this is religious doctrine; another is tradition based on false assumptions about the human babe and child. When a child is regarded as "by nature sinful and unclean," adults see to it that he is carefully indoctrinated and molded so that basic instincts can be overcome. When children should be seen but not heard, there is usually little understanding of childhood or there is adult selfishness for peace from children.

It is now clear that life is a long period of gradual development, that the human being is influenced strongly by his environment, and that innate abilities exclude values and attitudes. It is also clear that if initial development does not take place, much of what a youngster should learn during his early years cannot be compensated for or developed later.

11. A final assumption, for this paper, which needs to be changed is the notion that essentially the same schooling is appropriate for boys and girls. Teachers and parents recognize the differences in boys and girls, yet nothing much has been done in school programs to provide for or capitalize on these differences. Recently the pressures to impose specific cultural roles on boys and girls seem greater. Boys typically are expected to be more aggressive, independent, and non-conforming, to dissent and question. Girls are expected to be submissive, dependent, and conforming, to please and support teachers and other adults. Boys more often than girls are discipline problems. Attitudes about masculinity and femininity influence interest and performance in school to the point that some subjects are actually seen as feminine or masculine. Girls on the average make better academic grades in junior and senior high school than boys, yet boys score as well as girls on achievement and IQ tests and more boys than girls go to college.

The need is acute to give special attention to and at times challenge imposed cultural roles and adult systems of control. An example of the alienation of both boys and girls is the hippie movement, which stems from overcontrol and the inability of adults to communicate with the young, and vice versa. If preadulthood is to be a desirable, respected period of life during which growth and development are fostered, encouraged, and tolerated, changes are in order in school programs and in approaches to instruction.

These assumptions, although not comprehensive, serve to illustrate some of the kind of thinking which is needed to bring about a new sort of education. It is not always possible to draw implications directly, but the identification of outmoded assumptions provides background for thinking about new concepts of education and possible new models of teachers and teaching.

A New Education

A new concept of education will go well beyond the school. Education under school auspices and in other community agencies will provide greater scope, more facilities and resources, and more reality in learning. It will capitalize on all of the agencies and people who contribute to learning and education. The existing emphasis on abstract concepts and vicarious experience will be enlarged, because some youngsters have insufficient experience to deal with abstractions and most youngsters need more contact with real things and real people. The new school will have work-study programs to enable students to gain practical experience to which abstract and concrete study and thinking can be related. Study and work for short or extended periods will be arranged out of the classroom and out of the school. Many community, business, industrial, governmental, and other agencies will serve as supplementary learning centers. Youngsters' study programs will be individually designed, based on continuous and careful diagnosis of individual intellectual, psychological, physical, social, and aesthetic growth, and work will add essential responsibility and provide status. Being a student will be recognized as a youngster's work. Education will offer as much or as little planned control of the school environment as necessary. The question of what and by whom controls will be exerted may present some thorny problems, but it also provides part of the basis for deciding on the purposes of education and the new roles of teachers.

The new education will include careful, continuous diagnosis of what a student knows, what he thinks he wants to know, how he learns, what he wants to learn, what he is able and motivated to learn. It will include counseling about alternatives in learning, recognition of various levels of learning, and examination of the degree to which learning has transfer value, is generalized or synthesized.

A new concept of education will help the learner develop an understanding of what learning is, how it takes place for him, how and why it can be or is exciting or dull, challenging or boring, rewarding or a waste of time.

The new education will explore and recognize conditions and attitudes which influence learning. Learning will be based on theories far beyond the simplicity of conditioned-response psychology. The new education will be concerned with how people feel about themsevles and how they feel about others and the influence of such feelings on how and what they learn. It will be concerned much more with the effects of physical and mental health on learning and will be seen as oriented to helping people live more effective, productive lives, not merely directed at getting a better job or social position. It will stress individual assessment based on what a person can do. It will provide for internal evaluation but will also use external assessment as cues to what has happened to an individual. One of the focuses will be helping the individual organize his own existential world.

The subcultures of childhood and adolescent life will be used as part of the substance for learning. Study and learning in human relations, interaction, and growth will use the real problems and situations of living (as students). Both real and simulated situations will be employed to apply knowledge and skills from all phases of learning.

Evaluation of student progress will be primarily in terms of behavioral goals. This will include not only the assessment of students' intellectual ability -- ability to analyze, understand, interpret and use what has been learned--but assessment of their performance as members of the school society.

In many areas of learning, particularly where performance goals can be identified specifically, such as in mathematics, typing, spelling, etc., requirements will be in terms of achievement rather than time. For example, the student will no longer be required to take two semesters of geometry or four years of English; he will study only as long as it takes him to demonstrate that he has achieved the specified goals.

Flexibility in all subjects and areas of study will eliminate the school schedule as we now know it. School will not begin and close at the same time for all students. In fact, on some days some students may not even "attend" school in the present sense. Schools, libraries, museums, art galleries, and other locations for study will collaborate by pooling resources to fit the students' learning goals.

Eventually, as the above sources of information and knowledge become readily accessible and as terminals for computer-assisted instruction and computer-stored information become available, the problems of access to data will largely disappear.

The new school will provide all types of materials for learning, including extensive collections of supplementary materials and primary sources which will be available on microfilm, microfiche, and other forms of computer-storing.

Teaching groups will be organized so that both instructional and subject matter experts can be available to make judgments about selecting content and approach in teaching. A variety of noneducators--psychologists, sociologists, social workers, artists, musicians, philosophers, political scientists, and other consultants--will be available on a temporary or part-time basis to work in schools and to help teachers analyze and make judgments about the appropriateness of curriculum and instruction. The selection of learning goals will include much more than deciding what, why, and how to teach. Much more emphasis will be given to creating the conditions under which learning can be fostered through individual study.

These ideas about the school in a new concept of education are far from comprehensive, but they do give some idea about the kinds of people needed to staff schools and about what the multitude of jobs in teaching might be like.

New Kinds of Teachers and New Concepts of Teaching as a Career

Educators in the future will perform a variety of tasks, some of which exist in schools today and many of which will be newly defined as teacher roles are differentiated. Roles will be identified and classified in terms of degrees of difficulty, responsibility, and needed artistry and in terms of background of the people who assume specific kinds of tasks. Role identification and assignment will be supported by a thorough, sensitive guidance program for the professional development of educators. There will be a specially trained staff for teacher evaluation, analysis, and guidance.

The term teacher will describe only some of the people who work with youngsters in learning. The concept of "classroom teacher" will refer to only one of the many kinds of teachers. The notion that teaching takes place in a room designated as a classroom with a specified number of youngsters will no longer provide a valid definition of the teacher. Teachers will perform in many roles which may not take place in classrooms as we have known them.

No teacher will be expected to be competent in all situations or with every child. Assignment of teachers and students will be made carefully and purposefully and assessed constantly. Reassignment will be possible at any point in the year.

The teacher of the future will be much more responsible for diagnosing learning problems, developing curricula, creating effective procedures, masterminding the production and selection of materials and media, and contributing to the professional development of himself and his colleagues . The teaching profession of the future will emphasize attracting people "who like to teach." The teacher will be a facilitator of learning; one who is fascinated with helping to dream up ways of learning and thinking; one who is sensitive enough to know when to let the student learn for himself; one who is intrigued by the young, the less mature, or the less sophisticated. Teaching will emphasize artistry and employ a rational science of pedagogy.

Teachers will be assisted by a variety of aides, specialists, laymen, students, and machines. Students will be expected to teach other students, recognizing that there is learning value in teaching.

Teaching will provide many career, temporary, and part-time positions, including advanced standing as a teacher. It will have many possible patterns, some of which will permit teachers to attain seniority, appropriate compensation, and prestige in teaching itself; it will not be unusual for a person to earn promotion without moving into administration and supervision. It will be usual for career teachers to earn up to three and one-half times as much as beginning teachers.

Teachers and other educators will have variety in assignment. Roles will be designed to maintain freshness of viewpoint. The educator who teachers will always be considered a learner. Assignment will be designed to provide sufficient variety so that overconfidence, boredom, and rigid routine in a subject or situation are avoided.

Deliberate efforts will be made to keep teachers from becoming routinized, static, dull, defeated, or stale. Some such measures will taken within the school system and some will be provided from outside of education. There will be exchange positions for all teachers. There will be foreign, government, and industrial assignments which teachers will take every three or four years for at least a year's time. There will be social work and other opportunities for teachers to become immersed in society so that they can avoid becoming shortsighted and complacent. It will be nearly impossible for them to become staid, rigid, or bogged down in a rut.

The career or senior teacher in the future will be expected to be more than the teacher of today. He will be a student of society, of human development and social history. He will be well informed in psychology, sociology, and social and political sciences. He will be a dilettante philosopher, scientist, social critic, world traveler, and politician. In none of these areas will he be similar to the people who devote their full energies and scholarship to a special discipline, but he will nevertheless not be unsophisticated. He will be a practitioner--one who depends on scholars, who communicates with scholars, who must interpret into action relevant data from these sources.

The teacher of the future will have a high level of academic freedom and will recognize what a profession is, what his role and his rights and responsibilities are, for himself and his colleagues.

Questions About Action

To realize a possible dream for remaking the teaching profession and developing a new, superior quality of education, a great deal must be changed in the present scheme of things. A number of new models have been developed and additional models will be developed as the concept of "The Teacher and His Staff" is expanded. New models of teacher education will be created and implemented under U. S. Office of Education funding in the next two years. The following questions are designed to elicit discussion and action in remaking education and the teaching profession:

1. What additional analysis of present circumstances in society needs to be undertaken to anticipate needed developments in education?

2. What key people in education and teacher education should be involved in initial attempts to analyze, anticipate, and predict?

3. How can scholars and social critics be involved to the best advantage?

4. How can new ideas best be shared within the profession and with the public?

5. What steps can be taken to translate ideas into action?

6. What changes in teacher education are needed to prepare teachers to work in schools where staff roles are differentiated?

7. What changes need to be made in certification requirements, salary schedules, tenure practices, student-teacher ratios, local and state financial support, and other traditional procedures to encourage new concepts of education and new thinking about teacher roles?

8. How can the provisions of federal legislation, particularly the Education Professions Development Act, be capitalized?

9. What changes in position and emphasis are needed by professional associations?

10. What can teachers do through local associations? Through other vehicles?

At stake is the future of American education. To dream a possible dream is no small task. To make the dream a reality is a monumental one.

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STAFFING FOR THE CHANGING PATTERN OF ORGANIZATION FOR INSTRUCTION AND LEARNING

Dr. Roy A. Edelfelt

Most of our shortcomings can be improved by education. There is a chance to change society in just a short period of time if we could change education, and the time is right for action. Laymen are more interested in education. There are more funds. The most effective way to get commitment to new approaches and different ideas is to involve people in their development.

Local education associations have not helped teachers to discover through their own experience that even profound and drastic change is possible, that one must work with people to create new facts, that they can see through their own experience things can be changed, and to provide the opportunity for real communications between persons of many different backgrounds. The main emphasis of local associations throughout the country has been teacher welfare. There must be a better balance between teacher welfare and professional welfare. We need desperately to give more time and effort to the central concerns of teachers and administrators and college people to teaching and school programs. We can demand and negotiate better salaries and fringe benefits, but we really do not have a case unless we begin to demonstrate the quality of our service.

To do this effectively, we must have more than a public relations program to tell what teachers are doing and to report on how well students are doing. Parents and laymen must be able to see and hear and feel the reflections of their youngsters in a school program that has meaning, that has intellectual excitement, that has social significance, that has enthusiastic participation.

One approach to the demonstration of quality service by teachers can be the achievement of different ways of working on instruction, different ways of employing teachers and youngsters in the learning process.

School personnel have discovered that the traditional concept of teaching is more and more unrealistic. The teacher does not have the time to plan, to analyze and to assess his own teaching, to find appropriate materials, to check the effectiveness of instruction, to get to know students, to keep in touch with parents and to evaluate the effectiveness of curriculum. Teaching really often becomes dull, routine and unexciting.

It is important that we become self-critical, and convince the public that drastic changes must be made in schools if future generations are to get the kind and quality of education they need. We are responsible for many of the ills of our schools, sometimes because of immaturity, sometimes because of apathy and lack of creativity, sometimes because of insufferable administration, and the public, of course, is also responsible for not supporting schools in a way which makes teaching exciting.

We must look at competence. Unless professional associations and local school districts take the responsibility for the professional kind of welfare of their teachers, we will continue to have a second-class profession. At least since World War II, there has existed what we call a teacher shortage. In recent years, we say more accurately that we have a shortage of people who will teach. There are enough people to teach in our society. They just choose to do something else.

The view of the school system as a vast, monolithic, faceless group of teachers, doing much the same thing, is widespread. The experienced teacher is seen as almost indistinguishable from the beginner. Traits and talents separating the great from the poor teacher are unclear. So, one of the motivations for changing the job of the teacher is to make teaching sufficiently attractive and exciting, satisfying and rewarding, so that we can entice and keep interesting, able people. It might be possible to create a general strategy for bringing in sub-professional people on a part-time basis, using these people as support personnel, who work with teachers as assistants. We lose about 11 per cent of our teachers every year.

The "teacher and his staff" concept is an idea that gets at these problems. It began with the recognition that teachers need more help, from both subprofessionals and specialists, and that it is important to have an open, objective and supportive climate to work and grow together.

The key slogans in encouraging the teacher and his staff concept have been involvement, innovation, experimentation and evaluation. Assistance for the teacher takes a variety of forms. Auxiliary personnel or teacher aides of all sorts, human and mechanical. They serve various functions: the human aides for monitoring purposes, for clerical purposes, for materials production, for simple teaching tasks, for reading to youngsters, for operating equipment and others. We do not have nearly enough of these people. Sometimes these people should teach cooperatively with a teacher, and make presentations in areas of special knowledge or assist with technology on some new area. There are provisions under the new Education and Professional Development Act for the use and training of such people so that we can bring scientists, musicians, journalists and other people into the classroom with some training to help teachers.

The teacher is the diagnostician of learning problems, the decision maker on what is taught and how it is taught, the judge of what materials and media should be used, but instead of deciding on all of these questions alone, he gets a wealth of advice, counsel and support.

The present definition of classroom teacher must be re-examined. For one reason, many teachers in new organizations will have administrative and supervisory responsibilities which had formerly only been the jobs of principals and supervisors. The concept of the career teacher, or the senior teacher, needs another look, for a teacher of superior competence usually has responsibility above and beyond those of other teachers.

Some people see the career teacher as the nucleus of the teaching profession, comprising maybe 30 to 40 per cent of teachers. They see the career teacher as "the professional" with a staff. If this comes about, of course, things will change considerably because a person entering teaching today has no place to go; the job of the teacher on the first day of teaching is about the same as the job of the teacher 45 years later on the last day of teaching. With a career teacher classification and other classifications, there will be some place to go in teaching--some higher status, greater responsibility and a more stimulating job.

The teacher and his staff concept raises many issues, and it challenges many established positions. For example, is it as important to worry about beginning salaries for teachers, or should we now shift and look at the range? We have gone on record as suggesting that the top salary should be 3-1/2 times the beginning salary. Is it still relevant to push for smaller class size when we may not even have classes as we now know them? Or, is it important to push for a certain teacher-student ratio if school is going to be a different kind of arrangement of teachers and youngsters? Or, will associations continue to be effective if we are divided into classroom teachers, principals and administrators, if teachers are going to do some administration, supervision, and principals are going to do other kinds of jobs?

There are many possibilities. To begin with, educators are being prompted to look again at the nature and the kind of competence needed for different teaching tasks. For example, what unique or special abilities are needed to lead a seminar group or to lecture to a large group or to tutor an individual or to support independent study? Should all teachers be required to handle all of these approaches? Should the beginning teacher start with the easier tasks in teaching and proceed to the more difficult tasks? Should a teacher's unique talents, attitudes and aptitudes determine his competence and his assignment? Who should be involved in making judgment about teacher competence and assignment?

There are also issues and problems in the introduction of auxiliary personnel and teacher aids in schools. All teachers need help, but many fear having a teacher aide, or the idea of having another adult in the classroom. There is uncertainty and insecurity about exactly what professional skill is and of what professional skills they have command. Still other teachers resent sharing "their" students with anyone. Teachers will resent auxiliary personnel if such help is thrust upon them, but if teachers are involved and informed in the selection, in the training, and in the assignment of teacher aids, the results might be quite different.

The action to date on the teacher and his staff concept has come largely from groups that are not the local associations, but improvements must develop out of the need at the local leve, rather than the adoption of someone else's ideas. There are, however, some general bits of advice:

One, at the local level, have a look around where you are to see what's going on in other school systems. Is it possible for the local association to help the school district develop policy so that the teachers can be released to visit these schools? Take along a school board member. Get materials and more comprehensive descriptions. Help communicate what is going on in your own school district.

A second area is to consider and discuss with the local association, membership ideas for the local association. Begin to raise questions about what is being done. Propose and act on specific procedures for improvement.

A third idea: decide what constructive and positive stand the association could take on topics such as teacher aids, differentiated roles of teachers, career teacher designation, participation and membership in policy devemopment, and get these into the kinds of agreements that teachers' associations develop with school boards.

Fourth, find some way to see to it that demands for involvement in ideas and action are linked to responsible commitment to carry through.

Five, use your state and national association for support where possible in implementing policy and in securing political pressure, and in finding sources of information.

And, my last suggestion is to involve local citizens in discussion and action. You will find that local citizens are as interested in some of the ideas and more supportive than some teachers.

There is a new world ahead for teachers and the teaching profession and for education. The teaching profession can become the pre-eminent profession. It can provide the kind of a full life which enables people not only self-fulfillment, but also the chance to make a contribution to their fellowman and the future of mankind. But, such a change can not take place until we make school and education more relevant and vital, which means we must change the way we operate.

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STAFF UTILIZATION

Bruce R. Joyce

Research in any area which does not come directly under the purview of one of the well-established academic disciplines is likely to develop awkwardly. Staff utilization is such an area. Innovations in staff utilization patterns are developed out of the problems of practice rather than out of the theoretical constructs of the basic disciplines, and, furthermore, we are only just beginning to see changes in uses of personnel derived from broad, theoretically based conceptions of man-machine systems. It is quite difficult, therefore, to compare the quality and type of work done on staff utilization with that done, for instance, in learning theory, which is an area of cumulative theoretical inquiry and which has the benefit of many psychologists, sociologists, and educators who have had much training in the design and the execution of research projects. Consequently, existing research on staff utilization can be interpreted with respect to its context only--the developments in technology and organizational patterns in public school settings--and these need to be explored briefly before the research is examined.

The 1950's and 1960's have been a time when the conception of staffing the schools with only one kind of person (the multipurpose classroom teacher) and only one kind of material (textbooks and trade books) has been replaced with the view of the school as a complex of man-machine systems in which teachers of many kinds work with technicians and lower order personnel of many qualities and in a matrix of technological devices and instructional resource centers. The work by Loughary (1966) exemplifies this. A massive effort has been going on to induce schools to experiment with new uses of physical facilities, personnel, and technological devices. In architecture, led by Educational Facilities Laboratories (1965), the concepts of flexible and creative use of space and of zoning schools for various functions (independent study, computer-assisted instruction, large-group instruction and seminars, etc.) have become well established. Team teaching has been made a familiar term by innovators like Anderson (1966), and the potential uses of television, computers, programed instruction, and other instructional modes are well known even to the lay public. However, the local school setting is often highly resistant to change, affecting adversely the conduct of research in any area which, like staff utilization, has to be carried on in the school setting. To start a program of research on team teaching or the role of the teacher as part of a man-machine system is extremely difficult. Without substantial financial support from a foundation or the government, it is often impossible to create the desired experimental conditions in the first place, or to keep them going until the teachers have had time to learn the new roles that are to be studied. Without intensive collaboration with a university or research and development center, it is difficult to assemble a qualified research team. Even university and school district collaboration provide no guarantee that research will be done.

Resistance to change has frequently forced research personnel into a defensive posture. For example, researchers exploring team teaching have needed to collect evidence about any possible emotional damage that might occur when the young child is exposed to more than one teacher (see Gibb and Matala, 1962, and Lambert, Goodwin, and Wiersma, 1965) because advocates of the self-contained classroom have attacked innovations in team teaching with allegations that emotional damage might occur. It will be difficult to carry on much fact-finding activity until heated arguments about the use of paraprofessionals, teaching teams, programed instruction, television, and computer-assisted instruction diminish greatly. The pressure from critics of innovations often forces innovators to proceed too quickly to assess the effects of utilization patterns on pupil achievement, whereas the first few years of a new utilization pattern should probably be given to "engineering" research that can result in knowledge of the optimal dynamics of the utilization pattern. For example, when paraprofessionals are introduced into a school system (or television or any other device requiring reorganization), the tendency has been to study immediate effect on pupils rather than how the paraprofessionals or media were actually used and how they might be used efficiently.

Two other problems affecting field research in the utilization of instructional personnel need to be recognized. The first is that patterns of staff utilization depend on administrative recognition that new roles exist. And, although the literature now abounds with ideas ranging from teaching with teams and the use of paraprofessionals to the development of man-machine systems, school personnel administration does not reflect these changes. For instance, Gibson and Hunt's (1965) recent book on school personnel administration shows only five instructional service positions including the teacher, guidance counselor, psychologist, nurse, and helping teacher. There is no recognition given to other instructional personnel, such as television specialists, programers, team coordinators, or instructional systems specialists. On the other hand, 16 service personnel, such as secretaries, clerks, and dentists, and 18 administrative service positions are mentioned in this same volume. Until the personnel administrators see a greater variety of types of instructional personnel, the newer types are unlikely to appear in the school setting in any great number. The other problem is that "systems" thinking has come slowly to the area of public education. Innovations such as team teaching or programed instruction often appear in local setting without the development of a full-scale pattern of organization that can enable these changes to be made or studied effectively. When introduction of a staff utilization pattern is conceived as the construction of a man-machine system, however, careful analysis of the possible behavior of the machine and people can be made in an effort to find out the actual situation of staff utilization of roles that teachers take on easily and the kind which they resist. For example, team teaching involves new kinds of leadership problems which have been debated vehemently (e. g., whether to have "hierarchical" teams), but the actual patterns of interaction of team members and the question of their efficiency in decision making has been studied very little, considering the amount of team teaching that is going on.

Despite the difficulties in the context of staff utilization there have been many studies reported even since Anderson's (1964) review. Progress can be discerned on three fronts: (a) through research which is done in the context of attempts to change staff utilization patterns in the public schools or to make technological innovations that require new staff roles, (b) through studies of teaching which are beginning to provide a more realistic idea of the potential functions of the teacher, and (c) through the development of conceptual frameworks for determining staff utilization patterns through the construction of comprehensive man-machine systems. In this chapter, each of the above three areas is treated separately, but the categories overlap somewhat.

Innovations in Staff Utilization Patterns

Team Teaching

The great push, especially at the secondary school level, to persuade schools to organize themselves into teaching teams and to make use of what have come to be called paraprofessional or subprofessional operatives on the teaching team has not resulted in much solid research. The Ford Foundation collaborated with the NEA Department of Secondary School Principals to initiate, to study, and to give publicity to projects at the secondary education level. Several numbers of the *Bulletin of the National Association of Secondary School Principals* were devoted to this problem and have been reviewed by Anderson (1964, 1966). The January 1965 issue of the *National Elementary Principal* is a guide to this attempt at the elementary level. Anderson (1966) and Hillson (1965) provided bibliographical guides through summer 1966. Nearly all of the "research" that has accompanied this movement has been descriptive and subjective, but that product was not unexpected. As indicated above, the people who have conducted such studies were concerned with bringing about an innovation and either guarding against gross damage to children during the innovations or fending off critics. Few were attempting to develop lines of cumulative research. Four or five studies, however, were very carefully done and should stand as examples fur the future development of the field.

One of the better studies was done by Lambert, Goodwin, and Wiersma (1965). Although it examined the operation of only two teams, the number of variables studied was large, and they were clearly identified. The investigation was constructed to yield much information about the processes of the team operations and factors influencing efficiency of operation. The dynamics of the much debated hierarchical team structure were investigated in terms of the content of instruction, pupil interaction, adjustment, and achievement. Some of the findings have immediate implications for team organization. Within the teams, discipline problems were greatest when intern teachers were teaching. Apparently the team operation, which is frequently touted as a good setting for student teachers and interns, did not automatically protect the novice teachers from control difficulties, leading one to wonder whether the children perceived the "team" as their teachers or whether they related to their teachers singly. Since one of the potential advantages of team teaching is that it enables teachers to have a collective or group effect on students, it seems that ways of bringing about this collective effect might well be studied closely. The primary grade team pupils surpassed their self-contained classroom counterparts in achievement, while the pupils with the intermediate team did not. The stability of the primary-team personnel was greater. Pupils on both teams had minimal problems adjusting to the team organization, even in the case of the changing personnel on the intermediate team.

Lambert, Goodwin, and Wiersma (1965) used a number of research techniques which could easily be employed more frequently in field settings: (a) pupils were randomly assigned to team and self-contained settings, (b) observers were trained to record infractions of discipline, and (c) the interaction analysis technique was employed to permit the study of such issues as the effects of team stability on the interactions with children. (For example, the unstable team was found to spend much less time on content than did either the primary team or the teachers of self-contained classrooms.) Although the small sample limits the generality of findings, this study indicates the value of intensive study of many interacting aspects of any staff utilization pattern, and it gives rise to many questions for extensive research both about ways the dynamics of team operations may affect pupil output and ways of improving efficiency in cooperative teaching. For example, if team efficiency does turn out to be closely related to team stability, which seems logical in any event, it is possible that the kinds of team teaching now being employed are not well suited to the school settings where teacher turnover is very high.

The Norwalk Board of Education (1963) commissioned Heathers to examine its team teaching program. Although Heathers worked under severe design handicaps (his chief source of data was written reports by team members), he asked critical questions of the data, and some of the results are important for students of the dynamics of team teaching. Norwalk is an established center of team teaching and had over 25 teams in operation during the year of Heathers' study; foundations and university consultants have provided unusual financial and technical support to the teams. Heathers found that 90 percent of the lessons taught within the team structure were planned by individual teachers working alone. Also, most of the topics discussed by teams during their planning sessions related to coordination of personnel and organization of resources, although teams reported that they set up overall plans under which individuals operated. These results are mixed and ambiguous enough to suggest that hard data are needed regarding how plans are made by teaching teams. If, for example, a team spends very much time reallocating individual responsibilities and if much planning and teaching is done by individuals, potential gains accruing to cooperative teaching may fail to develop. The Norwalk study also reported that most small-group instruction occurred in the curriculum areas of reading and arithmetic, which are the areas of instruction where small-group instruction occurs in other types of staff organizations. There were many other aspects of Heathers' study for Norwalk which should stimulate investigators to look closely at the actual patterns that develop when teams are formed and to conduct engineering research to improve team functioning. Many of the techniques employed in industrial psychology for describing and analyzing staff performance could be applied successfully to investigate staff utilization practices in schools.

Reber's (1965) survey in 1963 and 1964 addressed itself to the "persistence tendencies" of staff utilization projects sponsored by the Ford Foundation and the NEA Department of Secondary School Principals. This survey included 51 schools, of which 17 had been involved in staff utilization projects that were publicized during the late 1950's. The Schools in the innovation projects manifested a much higher use of innovations of all types, including the use of mechanical and electronic equipment, independent study time for pupils, and the use of instructional assistance, team teaching, and large-group instruction. They indicated that 28 out of 35 staff utilization projects are continuing and that 7 have been terminated. The ones that were terminated formed no particular pattern. The ones that continued included team teaching projects, the use of mechanical or electronic equipment, the use of lay assistance, and the use of independent study time organizational forms. A much larger percentage of the staff utilization project schools developed innovations in team teaching; lay assistance tended to be used in school libraries and lay readers in English classes. The survey indicated that most of the schools were unable to develop evaluation procedures that would produce reliable evidence of the results of the experimentation or, perhaps more important, of the difficulties and problems encountered in developing and carrying through the experimentation. Reber's study, while presenting a valuable survey of the use of staff in selected school districts, was not really designed to yield much evidence on the factors influencing the persistence of specific practices.

Fifteen years of innovation in team teaching have left us with almost no research evidence. Aside from the Lambert, Goodwin, and Wiersma (1965) study, there is little evidence of the effects of mixing people of different teaching styles on various teams. The use of teams to develop social climates in the teaching situation that will have a calculated effect on children is not particularly well-known. Most of the research on the use of paraprofessionals on teams has been defensive research aimed at working out nimimal roles for such personnel and proving that they do not harm the children who are exposed to them. Since the early 1950's, knowledge about the use of paraprofessionals has really not increased as a consequence of a carefully done research project. Throughout the bernetic models, which depict supervisors and subordinate personnel as interacting, self-regulating systems, can open up very different types of studies not only of team teaching but of teacher activity in all types of settings. It is particularly important that solid analytic schemes, such as those developed from the cybernetic point of view, be employed in school settings so that the experience of innovators not be lost to the future. For example, Joyce and Harootunian (1967) described a variety of teacher roles which were developed at the Valley Winds school in Riverview Gardens, Missouri, but which were never studied adequately and are now passing from the scene with no addition to the cumulative literature. So far even the expensive Franklin School project reported by Bair and Woodward (1964) has added little to cumulative knowledge although it has been widely imitated and has had great stimulus value.

Man-Machine Systems

As Anderson (1964) pointed out, the research on programed instruction, televised instruction, and computer-based instruction has gradually shifted from studies comparing these means of instruction with other methods to "engineering" studies concerning ways of improving the use of machines and media and integrating them with the use of teachers who are in direct contact with children. Sometimes studies of the use of media simply vary conditions of staff use and compare the achievement of students. For example, Bartz and Darby (1966) investigated the achievement of students using programed and nonprogramed texts under varying degrees of independent study, thus varying instructor roles. One condition required regular attendance at class meetings with lectures and examinations. A second condition required class attendance and examination once a week. The third condition did not require class attendance or weekly visits with the instructor or examinations. Students under all three conditions took the final examination. Some students under each condition used programed texts and conventional texts. Most test scores indicated that the condition 1 students exceeded condition 2 students and conditions 1 and 2 students exceeded condition 3 students. Also, students using the programed text under all conditions scored significantly lower than students using a conventional text. This study is unusual in its thoroughness, and it raises many questions which are worth future study. It suggests empirically what has long been suggested logically: that is, that instructional devices should be part of carefully planned man-machine systems. To replace the instructor with a programed text without respect to the motivation of the student or to require varying degrees of independent study without respect to the training of the students to play their new roles seems as unsupported by research as it is by common sense. The introduction of programed texts and television instruction requires the development of appropriate staff roles to fulfill functions not usually provided for through the usual roles of the lecturer.

Moskowitz' (1964) study also points up the desirability of making technological changes in the context of a conception of appropriate roles nation, once schools attempt to develop team-teaching patterns or work out ways of using paraprofessionals on teams, they cannot turn to accumulative research literature on the subject. Hence, they turn to the persons on school of education staffs who are mechanics of school organization, persons who have a clinical expertise that they can apply toward helping the district solve its problems. Some of the important first questions in the study of team teaching have not been studied carefully: What changes in educational environment actually take place when groups of teachers work together? Is content worked at a better level as a result of cooperative teaching? Can teams use their differences in personality and teaching styles in such a way as to capitalize on differences in children's personalities and learning styles? Theoretically, a team of people working together should be able to create a quite potent social climate. How can this be done? Is a team better able to handle individual differences among children than are single teachers working alone or certain kinds of man-machine systems?

Another kind of question that needs investigation is why so many teachers and theoreticians in education resist hierarchical structures in teams. The notion that all teachers should enjoy the same professional status has persisted in education for many years. Even where schools are unable to staff themselves with certified personnel, as in the big cities, they tend to give permanent substitutes and other temporary personnel the same responsibilities and duties as they do experienced teachers who have been carefully trained and are scholars of their subjects. It is important to study the question of how one enters into a society of teachers, most of whom believe they should work alone and have equal status. This is a critical question not only with respect to team teaching but with respect to any innovations in education that require changes in staff roles. It has been exceedingly difficult to intrude innovations into the school culture in such a way that they will make a difference. What is the nature of this teacher culture? What can be done to make innovation an experimental process rather than a continual battle against the resistance from the society of teachers? The study by Soles (1964) provides a beginning in this area.

Technically speaking, many improvements could be made in the study of team teaching. Many of the techniques used to study military teams should provide some useful networks for examining team behavior. The work by Glanzer (1962) has laid a basis for looking at levels of organization and integration. Halpin and Croft (1963) opened up a way of looking at organizational study climates that can be applied both to the settings in which team teaching takes place and to the operations of the teams. Both the constructs and the methodology developed by Halpin and Croft should be easily modifiable to apply them to the study of cooperative teaching. Information-processing models can very fruitfully move attention away from such questions as whether teams should be used or whether paraprofessionals should be included and move more toward studies of effects on the information flow in the classroom. Little is known about ways of affecting information flow or about training individuals for specific tasks or for roles that increase efficiency. Cyfor man and technology. In an earlier study she had found that elementary school students studying foreign languages by means of educational television had developed negative attitudes toward foreign language, whereas "live" classroom instruction resulted in positive attitudes. The 1964 study utilized different patterns of live teachers in conjunction with televised instruction. One group continued a television study of French three times a week and also was given Spanish lessons from a live teacher. Another group received the televised instruction followed by lessons from the classroom teacher. The third group took the French instruction by television and the Spanish from a live language teacher. A fourth group received no language instruction. Data from the study suggested that the form the initial language instruction takes is very important. Especially, the use of the live teacher in the early parts of instruction seemed to be desirable. No doubt successive items of research will reveal the kind of "mix" that is desirable between the use of the live teacher and televised instruction. This study is also noteworthy in that it includes not only student achievement, but also student attitudes toward what they are learning. Surely much research will be needed to determine how to utilize instructional staff so as to increase the liklihood of positive student attitudes.

Guba and Snyder's (1965) questionnaire study was a carefully designed, direct attempt to explore the relation between television and the classroom teacher. Studying 332 teachers who were using instructional television in their classrooms and 275 who were not, they sought to discover differences in instructional behavior and in attitudes toward new instructional media, in patterns of utilization, and in patterns according to expectations. They found that nonusers seemed to hold a stereotyped image of the television teacher as an "all-pervasive" preemptor of the classroom teacher, whereas users did not share this concept. In fact, they concluded that the role of the teacher is actually little affected by the introduction of television. They pointed out that the conditions under which the television was available were frequently unfavorable, even in the much publicized and heavily supported Midwest Project for Airborne Television Instruction project, so that actual use patterns were considerably restricted when compared to what is possible. Guba and Snyder concluded also that the use of television was chiefly for "telling and showing," with the classroom teacher following up. Further, television was frequently seen as an interruption in the classroom. Fears of television apparently lessened as it was used, and the users were more favorable toward instructional television than were nonusers. Four of their observations have many implications for designers of man-media-machine systems: (a) classroom teachers were poorly prepared to use the media; (b) classroom teachers were not given enough in-service help; (c) schools were not well equipped to receive television in settings that facilitated efficient use; and, perhaps most significant, (d) production fell short of expectations, a condition likely to discourage imaginative use by the classroom teacher.

An investigation that should be seminal in the development of thinking about instructional systems was conducted by the Denver Public Schools and the Institute for Communications Research at Stanford University. A very large sample was used in a probe of the combination of television instruction, self-instructional programs, and human teachers in an integrated instructional system. This study has been reported in several places and is most easily recovered in Jacobs, Maier, and Stolurow (1966), who reported the outcomes of treatments using programs only, teachers only, and combinations of program and teacher. What makes the study especially illuminating is the inclusion of pupil inputs (achievement, aptitude, and attitude) in relation to treatments and the investigation of teacher attitude as it relates to the results of the treatments. Both teacher-taught and teacher-plus-program taught groups performed better than groups receiving the program alone with the teachers utilized only as monitors. Pupil input did not interact with treatment as far as achievement outcome was concerned. Attitudes toward programed instruction were related to treatment, however, with teacher-taught classes having the least favorable attitudes. Also, the high-aptitude students seemed to like the teacher-program combination whereas low aptitude students seemed to prefer the program-alone instruction. The investigation developed some intriguing ideas for staff utilization patterns that combine teacher attitude, teacher role, and type of student (e. g., assigning teachers who like conventional methods and low-aptitude students to conventional roles and teachers who like innovative methods and high-aptitude students to newer instructional roles). While actual use of patterns such as these is unlikely, the study illustrates the need to investigate the interaction of variables in man-machine engineering research. The importance of these findings, of course, is that they reinforce the necessity for including considerations of pupil characteristics when constructing man-machine systems. Comprehensive instructional systems need to be based on differential treatment models, as suggested by Hunt (1966).

Computer-Assisted Instruction

Many observers feel that the information-processing load that is incurred by the need to monitor the progress of 20 or more learners working at their own pace is too great to be handled by the human teacher without computer assistance. Hence, there are now research and development projects such as those reported by Carter and Silberman (1965) to develop programed instructional systems that utilize computers for monitoring progress and providing data on which to base decisions about the needs of students. The interpretations of the work mentioned earlier by Bartz and Darby (1966), Guba and Snyder (1965), Jacobs, Maier, and Stolurow (1966), and Moskowitz (1964) can probably be extended to apply to computer-assisted instruction as well. That is, staff utilization patterns will affect the functioning of the system, and it would be wise to investigate many man-machine combinations until patterns emerge on which theories can be constructed to guide system development.

Studies of Teacher Role

Another important ingredient in the staff-utilization picture is the capacity of the teacher to fulfill certain roles. The studies by Bellack and others (1965) indicated that the central "move" or maneuver by the classroom teacher is the question, directed at the student and usually requiring a convergent response. The interchanges of the classroom were likened to a game in which questions and answers alternated in cyclic patterns. Little is known about the capacity of teachers to control this "game" to create alternate instructional roles. Hughes (1963) reported that most teachers utilized themselves as questioners or as givers of information and that the rare teacher used other roles. On the other hand, other investigators, e. g., Flanders (1963), have reported considerable flexibility in teacher behavior. Some teachers investigated by Flanders were invariably nonsupportive, and others were invariably very "direct" in their methods.

Decisions about the proper roles of human teachers, media, and machines will require much more complete research on the roles teachers actually fulfill and on their capacity to learn new roles and develop the flexibility to modify their behavior as teachers. The importance of research on this question cannot be overstressed at this juncture in history. For example, many educational theorists have advocated that teachers act as leaders of cooperative inquiry, a role that, judging from the studies on teaching, very few teachers actually fulfill. Similarly, many educational theorists believe that teachers should be quite supportive and accepting of student behavior, another role that, judging again from the studies of teaching, very few teachers fulfill adequately. Especially, it would seem that those who are concerned with the creation of a humanizing school climate should study more completely their greatest potential for significant research--the human teacher. At present, in spite of an increase in the studies of teaching, there appear to be many more investigations of the capacity of the mechanical teaching devices than of the human teacher.

Interesting because of their careful and complex research designs and because they illustrate the importance of replication are two studies by Ginther (1963) and Payne (1964), who examined the achievement of children in science when science consultants worked only with teachers and when they worked with teachers and assumed an instructional role. In the first investigation Ginther reported that achievement was greater when the consultants worked directly with the teachers and did not assume the instructional role. In the second study, a replication of the first one, Payne reported that there was no difference between the two methods of using the consultants, although there was a difference in the achievement when the consultant himself was considered as a variable. In certain ways the two studies were not exactly alike, but they were sufficiently close that the findings must be considered contradictory. Their studies were no more theoretical than many others but represent salutary use of first-class research design technique in a study of staff utilization.

The methodologies of many of the studies on teaching (only a few mentioned here) could easily be applied to the analysis of team teaching and media utilization. The study by Lambert, Goodwin, and Wiersma (1965) is a rare application. A number of important questions (for example, the effect of team teaching on classroom discourse and the effect of mixed teaching styles) are susceptible to research if the methodology of the studies on teaching is employed.

The Development of Theory

Some of the recent research indicates that staff utilization problems are gradually being studied with greater precision and more sophisticated research designs than in earlier periods. The need in the future appears to be for simultaneous development of more simpleminded fact-finding research to explore just what happens when teachers are utilized in different ways and of more sophisticated constructs that can guide research and improve staff utilization. The studies of teaching described above are resulting in a methodology which permits a close look at the realities of the teaching-learning process. The development of adequate theoretical constructs has been hampered by diversity among educators. For example, many who have focused on the development of technology neglect the role of the human teacher and vice versa. However, useful constructs are gradually being developed, and applications to educational problems are also being made.

The application of cybernetic principles as suggested by Smith and Smith (1966) is a promising avenue for research on staff utilization. For example, regarding the classroom or school as an information flow system gives rise to many interesting questions about how to use staff to improve the flow of information and the function of students as self-regulating learners within the system. Cybernetic principles would almost surely generate research that would result in different patterns of staff use. For example, the secondary teacher's "ideal" load is frequently put at 100 students, an estimate arrived at by rule-of-thumb estimates of efficiency. If analyses were made of information flow when different teaching functions were being carried out, the 100:1 ratio would seem absurdly small in some cases and impossibly large in others.

Flexible scheduling plans, such as those proposed by Bush and Allen (1964), should generate research on staff utilization when man, machine, and open-ended instructional resources are considered together. Models of teaching such as Joyce and Harootunian (1967) have developed will give rise to research on staff utilization by differentiating classes of teacher activity that may require different combinations of teachers. Loughary's (1966) analysis of man-machine systems can have the effect of turning educators toward the development of more comprehensive instructional systems from which patterns of staff utilization can be projected and tested.

From industrial psychology, also, concepts can be borrowed that should suggest profitable lines for inquiry. For example, Argyris (1964) has examined many aspects of the interaction between person and organization which, added to Halpin and Croft's (1963) applications to education, can provide a more thoroughgoing theory under which to examine that important aspect of staff utilization.

Despite the theoretical advances during the last five years, the challenge remains to build conceptions of staff utilization that will match the combination of human wisdom and technological grasp that characterized Buckminster Fuller's Education Automation (1962). Fuller's work should prove to be a cornucopia of ideas in this and other areas of educational concern.

Other Materials of Interest

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A. Concepts

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A DIFFERENTIATED TEACHING STAFF

Dwight W. Allen

Central to the study of the organization of educational programs is the consideration of the role of the teacher in a professional staff. The current model of teacher-use is a model that was originated in the nineteenth century, and needs considerable re-examination, as we consider the problems faced by education today.

The present concept of help for the teacher dates back to a nineteenth century Normal School model, where the teacher typically had completed a ninth grade education and one year of normal school. There was a valid assumption that the teacher was not able to cope with educational problems confronting him or her, so we had to build help for the teacher, a hierarchy of professional staff who were available to teachers as consultants to backstop their inadequacies.

The training of teachers today is not even remotely similar to that of a century ago. Teachers have four or five years of college education and are better able to deal with both their teaching subjects and their students. No longer is even the beginning teacher in danger of being run out of the classroom by his or her students. Yet help for the teacher remains the same: supervisors and consultants and curriculum coordinators and administrators.

We need a new concept of help for the teacher: clerks and proctors and technical assistants and teaching assistants and research assistants. The objective is not to eliminate curriculum coordinators and consultants and other kinds of specialized help, but the emphasis should be on the teacher as a professional, with various kinds of technical assistants to help the teacher with his professional responsibilities. Presently we fail to differentiate between instructional responsibilities which need five years of college experience, and the competence needed to run a ditto machine. The teacher today is cranking his own ditto machine and typing his own stencils, and proctoring, and acting in the capacity of technical assistant as well as instructional leader. We have an undifferentiated staff, reminiscent of the medical profession at the turn of the century when the family doctor was responsible for the full range of medical services without nurses, laboratory technicians, or other assistants.

The current role of teacher is typified by no differentiation in staff responsibilities. A teacher is a teacher is a teacher. Teachers are interchangeable. Promotions are away from students. If a teacher becomes a department head, he teaches fewer students. If he becomes a counselor or administrator, it is likely that he does not teach students at all. It is a rather strange kind of profession where all promitions are away from the clients that we are attempting to serve.

The only way to get promoted as a teacher is either to grow older on the job, or go back to school and take more courses. These criteria do not emphasize the professional aspects of teaching, or the professional responsibilities of teachers. Consider the example of a fairly large high school where three teachers teach identical classes, say ninth grade English. The first teacher has been recognized as the outstanding teacher of the county so we assign thirty students to each of her classes. The next teacher has been on tenure for years but is medicre almost to the point of being incompetent, so we assign thirty students to her. The third teacher is a first year teacher, untried, possibly outstanding, possibly incompetent, we just do not know, so we assign thirty students to her. We place students into these classes and pretend to them, to their parents, and to ourselves that they are all getting something called ninth grade English, which is manifest nonsense. Parents would rather have their children in a large class with an outstanding teacher, than in a small class with a marginally competent teacher. Class size is not the prime issue. No matter how few students are in a class, if the teacher is not competent, the instructional situation cannot be good. We need to find some way to differentiate the responsibility of the outstanding teachers and use other teachers in supporting roles. The outstanding teacher should be responsible for the education of more students.

This is not a merit pay proposal. Under merit pay, teachers have the same responsibility but get different compensation. A board of experts monitors teaching competence and differentiates merit categories with special status and compensation. This does not help the students who are not in these favored classrooms. We need instead a differentiated teaching staff where not only do teachers have different compensation, but also have differentiated responsibilities.

For purposes of examining the idea we can identify four categories of teachers, four differential teaching staff responsibilities (see Figure 1). Based on a mean salary of $7,800, not atypical in California school districts today, a proposed salary range of $5,000 - $18,000 would be compatible with present staff expenditures. Additional funds would not necessarily be needed to differentiate staff in accordance with the present example.

The first category would be Associate Teacher, with a range in compensation of $5,000 - $7,000, perhaps in ten steps (the detail is not important). This teacher would typically have at least an A. B. degree. The staff category should not be tied specifically to preparation or course units, although we can think of median levels of preparation associated with the differential staff ranks.

DIFFERENTIATED TEACHER STAFF

COMPENSATION AND RESPONSIBILITY

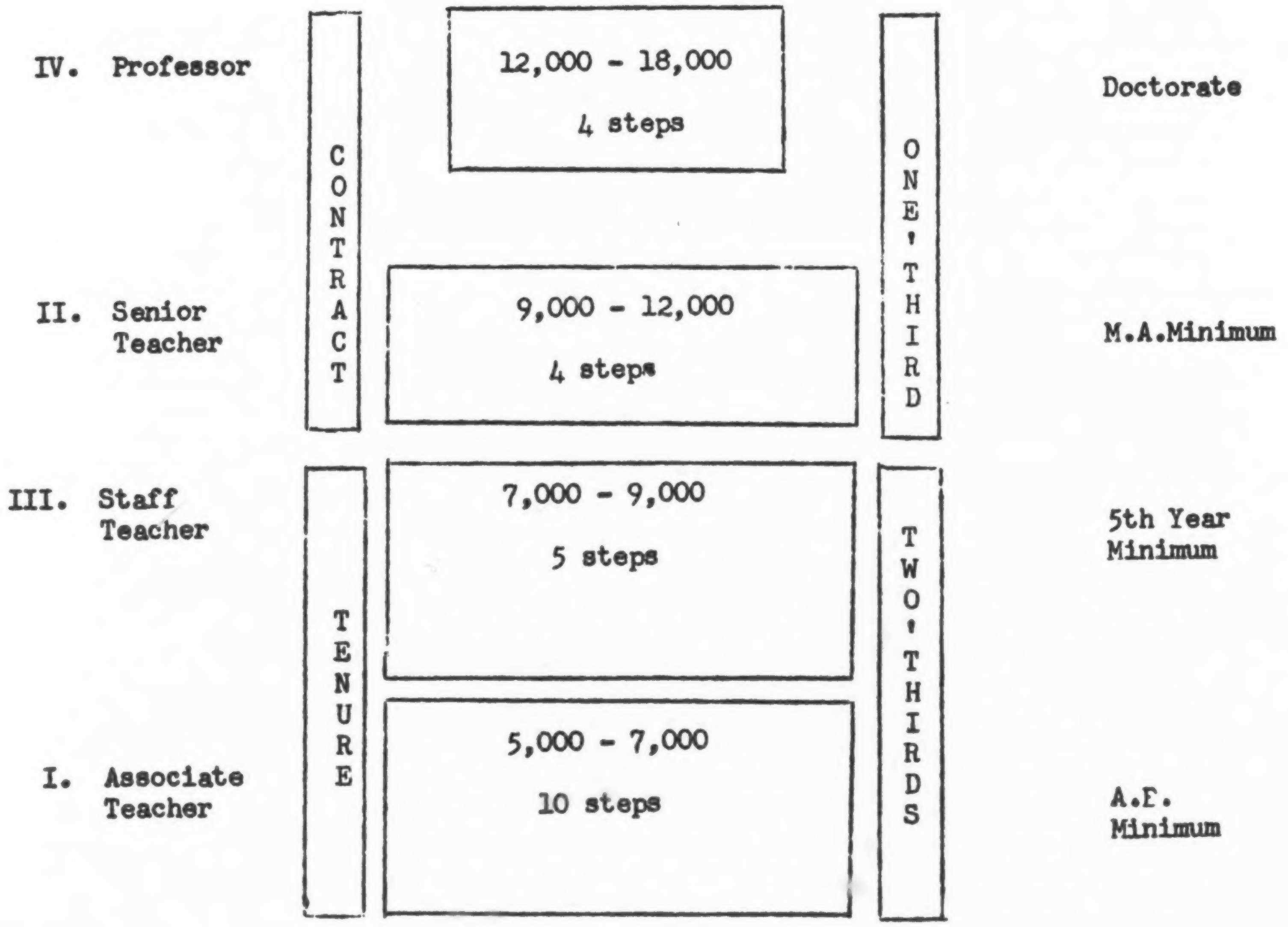
IV. Professor
12,000 - 18,000
4 steps
Doctorate
CONTRACT
ONE'THIRD
II. Senior Teacher
9,000 - 12,000
4 steps
M.A.Minimum
III. Staff Teacher
7,000 - 9,000
5 steps
5th Year Minimum
TENURE
TWO'THIRDS
I. Associate Teacher
5,000 - 7,000
10 steps
A.B. Minimum

Fig. 1

The second level would be Staff Teacher, with a salary range of $7,000 - $9,000. Advancement might be more accelerated within this staff category, perhaps five annual increments. Typical preparation would be a fifth year of college.

The third category would be Senior Teacher, with a salary of $9,000 - $12,000, with probably an M. A. degree.

The highest level might be designated a Professor. The title is not so important, but there should be a way to identify instructional responsibilities in the elementary and secondary schools that have commensurate professional responsibility and recognition with instructional positions in higher education. Compensation for the fourth staff category would range from $12,000 - $18,000 and similar to category three, would have perhaps four steps. This staff level would typically be associated with the doctorate and would enable a person who was interested in classroom teaching to have a full professional career in the classroom.

In the Secondary Teacher Education program at Stanford University approximately 140 candidates are trained each year. These students would compete favorably in any group of professionals. It is a very select group. One of our interns, four years ago at the end of his internship year, was voted the outstanding teacher at the high school in which he was interning, a fine school on the San Francisco Peninsula. The quality of the entire staff is consistantly very high, but this intern was voted by the senior class as the outstanding teacher of the year at this high school. Where is this man four years later? He is completing his doctorate in Political Science and is a finalist in one of the outstanding post-doctoral fellowship programs nationally. He is an outstanding person. Could we recommend, in good conscience, that this person stay in the high school classroom? In the high school classroom, he would have to wait ten to twelve years before he could rise to the top level of teacher compensation and recognition, with little opportunity to exercise either his initiative or his enthusiasm in the process.

One of the inequities of teacher salary scales at present is the fact that if one examines the range of teacher competence and the range of teacher compensation, there is probably more concentrated competence in the middle range of the salary schedule than at the top ranges of the salary schedule. Teachers who have outstanding ability and initiative eventually promote themselves away from the classroom and monolithic salary schedules into counseling, administrative and higher education positions. Those who have less initiative and drive, although there are notable exceptions, remain in the high school and the elementary classrooms and eventually rise to the top of the salary schedule. There is no way under present staffing policies, to recognize unusual talent, or to intend its influence to benefit more students.

Consider the first and second staff levels as tenured positions and the third and fourth levels as contract positions. This would not require any modification in tenure laws; a person could be hired as an Associate

Teacher or Staff Teacher, and receive tenure as a Staff Teacher. Teachers teaching in contract positions, at levels three and four, could still be tenured at level two, in much the same way that administrators now are not tenured as administrators, although they may hold tenure as teachers in the district in which they are serving as administrators. Typically levels three and four on the staff would be on twelve-month contracts, rather than nine-month contracts, moving in a desirable direction of professionalism. This proposal initially provides for two-thirds of the staff at levels one and two, and about one-third of the staff at levels three and four. A district would have to think through specific differentiated staff responsibilities and promote teachers to fulfill a particular responsibility. When teachers are promoted by longevity, districts have no control over the promotion of staff dollars in relation to staff positions. Some districts in California anticipate that their median salary level will raise by some $500 over the next five years, on the present salary schedule, simply because of longevity and tenure of staff.

What are the advantages of a differentiated teaching staff? Automatic promotion regardless of competence is eliminated, a real key to improving professionalism in education. There may be five people in a particular school that have the capability to operate at the highest level with only one position available, in the same way that there may be five people that could competently serve as administrators with only one position open. However, once a person is promoted, he undertakes a responsibility which is different than the responsibility he had previously discharged. We may not be able to promote and recognize all of the talent that resides in the teaching staff, but at least there is the potential for the use of talent in differential service. Secondly, if we develop a differential staff we will identify specific responsibilities at each level. The serious identification and development of these responsibilities will take considerable time and effort. A first approximation might be to think of the Associate Teacher as the Doer who carries out curriculum developed by more senior members of the staff. The Staff Teacher may be the Illustrator who works with the curriculum as it has been developed in general, but illuminates it with different illustrations and enriches it in many ways. The Senior Teacher will probably have some say in the shaping of the concepts of the curriculum, and the person who is operating at the top staff level should have a primary role in anticipating directions of curriculum development. This person could be looking ahead ten and twenty years, rather than placing the educational enterprise in the position of having to respond to developments in the total society after the fact. We need ro organize schools and staff to anticipate the changes that will be needed in the educational enterprise.

A third advantage is that the higher salary levels would be reserved for persons performing at levels commensurate with the salary level. This would encourage younger, talented staff members. There is a way to recognize talent early and reserve it for the high school or elementary classroom rather than lose it either to other professions or to other leadership positions in education.

A differentiated staff can make effective use of persons who do not wish to accept full professional responsibility. Under the present system, once a teacher is employed, his compensation and responsibility proceed independently of his professional interest or competence. There are a large number of teachers, primarily housewives, who do not wish to accept full professional responsibility and would be delighted to accept a more modest responsibility and compensation. There are many talented people who are unwilling to accept employment in the schools at all, at present, because employment implies this undifferentiated responsibility. We have to think much more imaginatively about the use of the total personnel resources available to the schools, full or part time, and at all levels of competence and responsibility.

The elimination of labor-management connotations in staff negotiations is another important consideration. We are in a decade of decision in terms of how teachers are going to negotiate for professional status. There is a real danger that we will sharpen the dichotomy between the teacher-professional, which is most undesirable in the development of more effective education. It is not appropriate to adopt a model in education that is relevant to other circumstances, but not to the development of a profession. By making it possible for classroom teachers to be compensated better and have more substantive responsibility than some administrators, we will recognize the fact that teaching performance and teaching competence is the heart of the education enterprise.

A differentiated staff will facilitate innovation. If a staff is prepared to undertake differentiated responsibilities, then we will not continue to find ourselves in a position where innovation is painful, traumatic, and difficult. We have to realize that we live in a world of change. We must learn to respond so that we do not have to make a disproportionate effort to institute minor changes.

There is a substantial organizational benefit from a differentiated staff. At present, organizational alternatives are severely limited by constant staffing formulas and monolithic requirements of staff use. The educational organization can become much more flexible - more alternatives can be considered. By identifying staff responsibilities more precisely, we can train staff to accept specific responsibilities. No longer will we be tied to the limitation of retraining the entire staff whenever change is desired.

Finally, there are advantages in the identification and use of differential staff talents. Unsuccessful teachers might be used effectively if they did not have to perform the full range of teaching competences. Some teachers who are excellent in terms of their creative ability have the fatal flaw of lack of classroom control. If we could differentiate staff responsibilities, to minimize the necessity for such teachers to exercise class control, they could be constructive members of a teaching staff.

A discussion of a differentiated teaching staff would not be complete without identifying problems associated with its implementation. First of all, it is difficult to identify differentiated staff responsibilities. We have not thought about the use of staff in such a manner, and it would be a major undertaking to differentiate teaching staff responsibilities. Secondly, it would be difficult to establish working relationships among a differentiated staff. Thirdly, a differentiated staff implies modification of the total school program. This may mean that we have to consider different ways of instructing pupils other than thirty at a time with a single teacher, daily, for an hour. The notion of a differentiated teaching staff goes hand in hand with other organizational and program modifications, some of which become possible and others of which become necessary if a differential staff is to be developed. Fourth, there is a lack of precedence of education decisions in systems in employing differential staff, and we would have to examine the way in which decisions would appropriately be made. Fifth, we need to develop new concepts of staff training. Teacher education programs would have to be modified substantially, recognizing which of the tasks of teacher education would be pre-service and what portion of teacher education would be in-service training. Some formal training elements might be mid-career elements. A sixth problem is the rejection of differential teaching ranks by current staff threatened by performance criteria. There are now teachers who are enjoying the benefits of an undifferentiated staff without commensurate responsibilities, who are likely to complain. A "grandfather clause" would take some of the pressure off the present incumbents. And finally, there is the need for over-compensation in lower staff ranks during transition periods. We now have teachers on salaries of $10,000 to $12,000 who would be assigned at the lowest level of differentiated staff. There will have to be provisions for the extra finances necessary initially, to implement a program of differential staffing.

As we look forward to the next decades, unless we face the notion of a differentiated professionalism in the teaching staff, we will limit the quality of American education. Approximately three out of every ten college graduates presently go into teaching. It is likely that we can attract some more top candidates and it is likely that we can eliminate some at the lowest level. But, by and large, we will have a 'body politic' teaching staff much on the order of competence that we now have. We must use them more effectively.

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SCHOOL STAFFING PATTERNS AND PUPIL INTERPERSONAL BEHAVIOR: IMPLICATIONS FOR TEACHER EDUCATION

Bernard H. McKenna

As the acquisition of knowledge and skills by elementary and secondary pupils comes predominantly under the purview of computer-based instruction, television, simulation, laboratory-type and on-the-job experiences, the allocation of the time of the classroom teacher to various tasks, the distribution of pupils' time among a variety of learning experiences to accomplish the total objectives of the schools and the organization of the system itself should see sharp change. Increasing amounts of time will become available to teachers for developing in pupils interpersonal attitudes and behaviors. Obviously, achieving attitudinal and behavioral goals should not be totally separated from the acquisition of knowledge and the perfecting of skills; but it begins to be clear that interpersonal attitudes and behaviors are not likely to become fully developed if dealt with only in the knowledge and skills learning settings. Even the social studies continue to fall short of providing opportunities for attitudinal and human relations skills learnings. And this may become more the case as the social studies (and other basic skills and knowledges) are taught predominantly by means of a variety of cognitive models and automated devices.

Reliable observers of the current American scene and forecasters of the nature of man's future activity in this country predict that within the next quarter-century less than 20% of the adult working population will be involved in the production of material goods. Most others in the work force, it is believed, will be engaged in service-type occupations requiring varying degrees of human relations attitudes and behaviors which are yet to be highly developed in our society. Even more extreme conditions have been predicted--that high percentages of the population will need to be educated for a life without work (Snow, 1966). An indication of the direction in which society is moving is the increasing number of productive activities employing for their accomplishment group processes. The committee, one time looked on as a tool of the social scientist appropriate for limited use in achieving a few specific goals of the democratic process in government and some social agencies, is now becoming commonplace in the private sector. One is reminded of the old saw about the reporting of Lindbergh's famed flight to a noted scientist as he worked in his laboratory (the statement has been attributed variously to an inventor, a noted university researcher and others). Without looking up from his laboratory table the investigator is reported to have said, "I find nothing very astonishing in that; let me know when a committee does it." Clearly, the legendary sage was short-sighted on how the team approach was to expand to almost every aspect of the human enterprise. Today the Atlantic as well as farther-flung places, is flown almost daily by committees. The airlines would hardly consider putting a flight in the air without several committees of specialists on the ground to handle bookings, baggage, flight control and the like, as well as the committee of pilot, co-pilot, navigator, stewards and hostesses involved in the flight itself. Already the literature on business and industry reflects a shift from emphases on promoting efficiency and increasing production through improved working conditions and fringe benefits to concern for the relationship of the organization to individuals and groups of workers. The current attention given to the findings of industrial psychologists (Argyris, 1957) is indicative of the trend.

Couple with the emerging public and private sector requirements for group-process competencies the staggering statistics on the severity of mental health problems, marriage failures (one out of four in the nation, one out of two in California), and widespread evidences of less than enlightened attitudes and behaviors toward human rights, race and the like, and the educational task in this realm becomes monumental. Even assuming that individual inter-personal problems are no more acute or widespread than formerly and that only identification procedures and statistics are better, they are with us nonetheless; and few deny that they deserve and require the attention of a broad range of institutions in society including the schools. Then add these indictments: that Americans know and understand little of the meaning of historical and contemporary facts of other cultures (let alone appreciating their values, attitudes and interpersonal priorities); and that our ability to behave comfortably and appropriately in the presence of those whose scheme of things requires a learned protocol is mediocre. If, as a prominent college administrator has pointed out, "There is going to be one kind of education in the future that will suffice. That is an education which prepares people to live in a world community," (Benezet, 1960), then an additional burden is upon the schools of developing interpersonal attitudes and behaviors related to other peoples as well as people.

One premise on which this paper is based is that computerized instruction, television, team teaching and the like do not promise to meet to any satisfactory degree the interpersonal needs set forth above. Therefore, a brief resume of current popular innovations in education is presented below to point up present emphases and the degree to which they may be predicted to meet the requirement for developing interpersonal attitudes and behaviors. This is followed by a model of required teacher competencies and some recommendations for revised priorities in the preparation of those who teach.

Past Efforts and Current Innovations that Indicate the Need for Change of Emphases in Teaching Tasks

Two general categories of innovation promise to assume substantial blocks of responsibility for knowledge and skills learnings: (1) technological devices and (2) revised organizational patterns. While it is likely that too much is being attributed currently to several innovations in both categories, considerable promise for the foreseeable future is surely present in several of the more recently developed media.

In the category of technological devices, educational television appears to be on the threshold of making substantial contributions to specific learning tasks mainly in the realms of informing, explaining, demonstrating, and dramatizing (several recent disappointing reports on its progress notwithstanding). When fully developed, it should serve well those facets of educational content where enlightenment of the general population is desirable but where high levels of proficiency in all individuals are not necessarily required, e. g., familiarization with the solar system or differentiating among classifications of the drama. It appears that it will do better for those tasks not requiring extensive employment of a feedback loop or for which reinforcement must be insured.

Computer-based instruction, on the other hand, should become broadly applicable for assisting reinforcement learning. And when more of the "bugs" are out, it will have in addition the capacity for providing considerable feedback. Cautions will need to continue that it is not mistaken for individualization beyond differentiation among learning rates unless different content is placed in the machines for different pupils. Realization of its full potential awaits much more attention to soft ware than has been given to the present.

Several other "hardware-type" learning aids have attained less public prominence, but hold promise nonetheless. Among them are listening corners, cartridge-type projectors video tapes of pupil performance, and manipulative models and mock-ups. Some of these will eventually be used in ways that go beyond the presentation and reinforcement of content. Working models and mock-ups and video tapes of pupil performance, particularly, seem to have characteristics which touch more on the affective domain. Listening corners and 8mm projectors have some of the same limitations related to the feedback loop as does television but should contribute measurably to opening up vast resources of knowledge for individualizing content learnings--depending on how rapidly soft ware (tapes, cartridges and the like) of high quality is developed.

The category of organizational arrangements presents more complex problems both in arriving at clear definitions and in evaluating outcomes. Imprecise taxonomies and a multiplicity of variables make it difficult to communicate just what is operative in specific organizational designations and to measure their unique contribution in settings where variables nearly defy control.

Two of the currently most popular patterns of organizations are team teaching and the non-graded plan. Team teaching, practiced in a variety of forms, is defined by one authority as an arrangement by which two or more teachers are given responsibility, working together, for all or a significant part of the instruction of the same group of students (Shaplin, 1964). Among the advantages put forth by its advocates are provision for teachers to specialize in those curricular areas of their highest competency and interest, improved settings for cooperative planning and organizing, differentiation of leadership roles for teachers, and varying size of groups on the basis of differing learning rasks. This device also holds considerable promise as a vehicle for accomplishing some of the interpersonal tasks. But its present uses seem analogous to putting "old wine in new bottles." That is, changes have been mainly structural. It is not that new structures are non-contributing to desirable change. In fact, it has been demonstrated that change in organization per se does at times contribute to revising the activities and emphases of the organization in accomplishing its objectives, even altering the objectives themselves. But team teaching just doesn't seem to have tended in that direction. Its past and current successes appear to lie more in the provisions it makes for flexibility in group size and in attitudinal satisfactions expressed by teachers on the cooperative planning aspects. Little research has been done to indicate differences in pupil gain as a result of team teaching. Caution needs to be exercised in several dimensions as it is implemented: that it does not result in accentuating the less desirable characteristics of departmentalization, i. e., the intensification of specializations with too little attention to interrelatedness; that scheduling does not become so complex as to result in "the tail wagging the dog;" that overemphasis on the large-group component does not result in blocks of unproductive time on the part of pupils; that teachers' unique teaching styles do not become subverted--some superb teachers may not be well suited to the arrangement.

The non-graded organization is a plan for replacing age-grade placement arrangements with larger time blocks (2 or 3 years ordinarily) through which children move on a continuous-progress basis determined by their individual learning rates, maturity levels, needs and interests. It represents an alternate approach to the homogenous grouping dilemma and in theory, at least, seems to be a desirable arrangement for "taking the learner where he is," and moving him along at rates and in directions most appropriate to his particular characteristics, needs and interests. Like some other grouping plans its operation is affected measurably by the size group for which teachers can develop and apply individual learning recipes. Like team teaching it has been subjected to little controlled evaluation and there is scant evidence to date that it improves pupil learning. In fact, some recent studies point to uncertainties that have led to a return to the graded plan. It, too, seems to have positive philosophical bases and, hopefully, its worth may eventually be verified on other than attitudinal positions of teachers and pupils. Some cautions that need to be taken into account include: that it not result in just another conventional homogeneous grouping plan under a new name (there is considerable evidence over a long period that homogeneous grouping hasn't worked very well); that the placement of pupils be done with precision, placement being most critical to success; and that it may require more staff, more time and more expertise in applying and interpreting placement devices than are operable in age-grade placement plans; a concomitant is the requirement for increased guidance generally.

Several other organizational arrangements are in limited use--among them the dual progress plan, the contract plan, and the pupil-team learning plan. For the most part they represent alternate ways of accomplishing present objectives with present content and put forth as advantages increased individualization of instruction and/or extended opportunities for teachers to pursue subject-matter specializations.

The preceding resumes seem to indicate that some of the newer technological devices and organizational arrangements, promising as they may be, mainly offer ways for promoting current learning task priorities, i. e., those related to knowledges, understandings and skills in the subject-matter areas. The emerging educational tasks described in the beginning of this paper, i. e., developing in pupils interpersonal attitudes and behaviors, are not being accomplished to a measurable degree by these devices. And it is not likely that many of them hold promise for contributing in a major way to these newer purposes, except possibly for making available more time and more flexibility in the use of time and staff. The development of these learning tasks will rather demand the direct and intense involvement of teachers with pupils in a variety of interpersonal activities of both an individual and group nature. And it will require the resolving of a number of questions related to teacher competencies, pupil behaviors, and school organization.

Questions That Need Resolving in Light of Required New Emphases

Three major questions need answering in light of emerging requirements for developing in learners interpersonal attitudes and behaviors:

1. What attitudes, skills and behaviors of teachers are required for the revised emphases?

2. What activities on the part of pupils will contribute most to the development of interpersonal attitudes and behaviors?

3. What kind of organizational arrangements, teaching materials and physical settings will be needed to perform the tasks?

The main purpose of the remainder of this paper is to suggest possibilities on the resolution of the first question. Obviously the three are not mutually exclusive--teachers/ attitudes, skills and behaviors should be in great measure governed by required pupil learning activities and the activities of both should determine organizational arrangements, the selection of teaching materials and physical settings. Therefore, a point of view on pupil needs, the second question, precedes discussion of the first.

Required Pupil Activities: Some Answers to the Second Question

Passive learning arrangements will not suffice for developing in pupils interpersonal attitudes and behaviors (they have not been sufficient in the subject-matter field although learning tasks have frequently been planned as if nothing more were required). Active involvement of pupils will need to be substituted substantially for "learning about" if the school's mission in this realm is to be accomplished successfully. While involvement in and of itself is not likely to accomplish the tasks of interpersonal development, involvement is a vehicle through which much can be done, when specifically defined and applied with relevance. As with learning to drive a car--on-the-road training is not all, but one will not learn to drive simply by reading the manual. The findings of learning psychology have verified that learning is more certain to "take" and "stick" when the learning situation is most nearly like the situation in which the learning will be used. That opportunities for a broad variety of interaction experiences are important to developing attitudes and interpersonal skills need not be belabored here.

Active involvement is directly related to the increased student self-determination making its way, often painfully, into the colleges and junior colleges and which needs to be extended downward to secondary and elementary schools. In the first place, pupils mature earlier now--they're ready for it. Secondly, there is increasing permissiveness in other social systems in which pupils move, i. e., home, peer group, church, the community itself. And a third reason gains its relevance from the second--pupils will demand it. There is indication of this trend in a substantial collection of newspaper clippings accumulated recently by the writer reporting on instances of agitation for increased self-determination on the part of high school students.

To improve arrangements for active involvement and self-determination, the following activities (and others), on the part of pupils, will need to become more highly perfected, more broadly introduced, and more frequently employed:

1. Participation of pupils with faculty and administration as objectives of the school, its processes and governance are developed. The traditional pattern of student councils as after-the-fact rubber stamps for determinations already made by administration and faculty will need to be altered measurably.

2. Pupil involvement as active agents in community activities (not merely observer-interviewer--researcher) including local government, social agencies and organizations in the private sector.

3. Sensitivity training and group counseling as regular parts of classroom experiences. The former is already in use in some secondary schools and the latter has been experimented with for some time.

4. Provision for broad participation by all pupils in such group-process experiences as chairing committees, leading discussions, observing, recording, reporting, role-playing, public speaking, communication simulations and the like.

5. Counselor-team conferences in which parent, teacher, counselor and when appropriate, social worker, psychologist and health specialist meet with individual pupils.

6. Field trips to and extended periods of living in cultures different from those familiar to the pupil coupled with increased emphasis on comparative study of value systems of other cultures. Such experiences should include overseas societies and non-Western cultures, but not exclusively. Recent studies reveal that suburban pupils are deprived of opportunities to gain understandings of the diversity of American life (Miel, 1967). A Yale professor concludes: "One hopes that young Americans might at that age (high school)[1] more easily learn to live and move inconspicuously in another culture, to accept the world's diversity as natural, to appreciate that fellow man is an end and not a means, to distinguish between a friend and a 'respondent' " (Morse, 1967)

7. Increased opportunity for formal study of cultural anthropology, sociology, psychology, and economics at earlier levels and in interdisciplinary relationships in elementary and secondary schools.

While some of these learning experiences doubtless are accomplishable in conventional settings and with present media and staff competencies, in the main they will require new commitments and skills on the part of teachers. Beyond this, they will demand a new teacher-type, a teacher who gives a major portion of his professional time to a combination of tasks not yet highly developed in the schools.

To delineate these tasks from others appropriate and necessary to the achievement of the full range of objectives of the schools, a model for teaching proficiency is proposed. The model is described in the succeeding paragraphs and is followed by expansion on that part of it dealing with the interpersonal aspects and the required education of teachers for carrying them out.

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[1] brackets mine

A Model for Staff Differentiation

The model presented below represents a dimension separate from those currently-popular differentiated staff proposals based on a hierarchy of professional development. That is, the differentiation suggested is related to learning tasks of pupils (skills, knowledge, talents, interpersonal attitudes and behaviors) rather than levels of ranks of teachers (assistant, intern, beginning professional, etc.). The two are not looked on as incompatible or mutually exclusive. On the contrary, they may prove to be highly complimentary. The model, based on some of the work of the late Paul Mort (Mort, 1962), is shown in Figure 1.

FIGURE 1

A TEACHING PROFICIENCY MODEL BY CATEGORIES OF LEARNING TASKS

Teacher Type and Proficiency	Learning Task Category
5. Facilitator of Attitude and Interpersonal Behavior Development: human relations attitudes and skills	Attaining a variety of human relations attitudes and behaviors, e.g., acceptance and appreciation of cultural differences, group process, group leadership roles.
4. Developer of Talents and Aptitudes: A skill for developing talent	Developing a potential talent in a specialized area, e.g., proficiency in dealing with higher mathematical concepts, playing a musical instrument, writing plays.
3. Identifier of Talents: Skill in promoting exploration in broad fields.	Identifying interests and aptitudes appertaining to interests, e.g., exploratory experiences in industrial arts, stenography, music, creative writing, earth science.
2. Liberal Enlightener: skill as a master presenter	Enlightenment in areas in which knowledge of the general population is considered important but in which every individual is not required to be proficient, e.g., types of literature, geological structure, weaving rugs.
1. Teacher Technologist: Skill in administering basic skills and knowledges	Mastering skills and knowledges considered essential for all, e.g., reading, historical facts of nations, computational skills.

Three major learning tasks of elementary and secondary pupils are delineated in the model: the mastering of basic skills and knowledge (#1); the development of talents (#4); the development of interpersonal attitudes and behaviors (#5). In addition, two ancillary tasks are shown. Each is accompanied by a teacher-type and proficiency requirement.

The Teacher Technologist

It was pointed out in the opening paragraphs that activities like those in learning task #1 are coming increasingly under the purview of educational technology (computers, television, etc.). This does not necessarily indicate that the teacher will be eliminated in the accomplishment of these tasks. He will rather become a teacher technologist[1] as shown in Figure 1. In this capacity the teacher will serve as administrator of learning using every available tool for diagnostic, placement and pacing purposes. The learning task will consist mainly of the development of similar skills and knowledges in all pupils but with alternate techniques, varied pacings, and different entry and exit points depending on the pupil's level of achievement at entry and his learning rate. The teacher technologist should have the ability to use systems approaches and be cognizant of the relative advantages to a variety of both hard and soft-ware for learning tasks related to basic skills and knowledges expected of almost all persons in the society.

The Developer of Talents and Aptitudes

Teachers devoting high proportions of their time to tasks in this category will be specialists in a particular discipline, e.g., molecular theory, sculpturing, playwriting. And they will need to have skills in helping others develop already-identified potential talents. It has been sometimes argued that to develop a talent in others one need not be able to perform the creative act himself. Indeed there are examples of such. But they are likely the exceptions. Teachers in this category may not need to be the most eminent physicists, artists, writers--but they will require depth of knowledge and a threshold of performance competency in their respective fields.

Facilitator of Attitude and Interpersonal Behavior Development

Since the main purpose of this paper is to set forth recommendations on the kind of teacher education required to promote interpersonal development, tasks in this category will be dealt with in a separate section. It is this category which the writer believes will become increasingly prominent as a consumer of manpower in the teaching profession and which will require major revision in emphases in teacher education programs. It is not that the other categories will merit little attention. The teacher technologist, for example, will need high levels of professional expertise. It is only that as technology becomes more precise, fewer professionals will be required to serve more pupils in accomplishing the learning tasks required of the technologist category. In addition, major emphasis is presently being given to its promotion, so that it soon should be highly developed. Interpersonal attitude and behavior learnings, on the other hand, currently receives short shrift both in programs for pupils and in teacher education sequences.

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[1] The term is the writer's. Others might be used. One concept (Bern, 1967) has expanded on the term "educational engineer" (Charter, 1945). The engineer designation may represent a professional position somewhat more advanced than the teacher technologist, but their functions must bear much similarity.

The Ancillary Categories

Two additional teacher types are shown in Figure 1. The liberal enlightener (Category 2 teacher) is an extension of Category 1. He serves to amplify knowledge acquisition in interesting and respected areas that represent to the society symbols of being educated but which are not essential for all or required to be mastered in full or in depth. For example, it's interesting and appropriate for the general population to learn something of such things as the development of the American short story, the emergence and migration of the Mormons, the principle of the vacuum tube, and the process of making pottery on a kick wheel. But full mastery of understandings in these varied subjects is not required of all. This category is one in which a sampling of knowledge in a broad range of areas might be presented in the most dramatic and exciting manners with minimal requirements for drill, total mastery, feedback or precise evaluation of pupil gain.

Required Teacher Attitudes, Skills and Behaviors: Some Answers to the First Question

By reference to the model in Figure 1 it can be seen that the answers to the first question (teacher requirements to meet new emphases on interpersonal behaviors and attitudes) hinge on the teacher type and proficiency in Category 5. They key term from the model in this respect is "human relations attitudes and skills."

Mort found that it takes 50 years for an innovation to diffuse to most schools in most states,[1] and that "bits and pieces" of emerging practice can be seen in approximately 3% of the schools during the first 15 years of the period; following that, diffusion accelerates; and 60 to 70% of the schools take on the new practice over a period of about 20 years. Bits and pieces of the emerging concern about interpersonal attitudes and behaviors in elementary and secondary education appeared more than 15 years ago in recommendations for increased attention in teacher education to self-understanding (Jersild, 1952). Ten years later it was reported that attention was being given in some schools to helping pupils better understand themselves and to developing commitments to values (McKenna and Wallitz, 1961). Thus, it can be seen that process has been underway for some time; but the "bits and pieces" nature of it, both in terms of pupil activities and teacher preparation, call for swift acceleration of those things begun and implementation of others yet untried if Mort's 50-year lag is to be substantially truncated and if schools are to meet the accelerating requirements for these competencies in the society.

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[1] There is some evidence from recent study that it takes only 25 or 30 years, or less, for some practices introduced more recently.

The artificiality of the schools as social systems is well documented. Obviously, the schools cannot fully mirror the outside world. They deal with high percentages of children and youth who are only in the process of "growing up" and who require, at times, careful supervision. But teachers need to obtain attitudes and skills that will result in the gradual substitution of self-determination for directive action. As pupils become able to handle it, they should be given increased responsibility for choosing their actions and for bearing the burden of consequences based on those actions. The institution itself should increasingly become a microcosm of the greater society as pupils move into the upper levels of the elementary and secondary schools. Structures and practices based in what appears to be an assumption that pupils in school learn how to live and only begin living once they have completed the "how sequence" must be revised. Much lip service has been given over a considerable period to the desirability of such a posture on the part of the schools, but little has been accomplished to achieve it. Correction will require revised attitudes and behaviors on the part of all teachers as well as those whose major concern will be directly promoting such development.

Appropriate subjects of study for teacher education and reeducation that will contribute to this purpose are cultural anthropology, sociology, social psychology, child and adolescent psychology, and political science. Some of these are already a part of teacher education programs; they require expansion. Those less touched on such as cultural anthropology, social psychology, and political science need development in breadth and depth.

In adolescent psychology, category #5 teachers need to understand infinitely more than they typically do now of the earlier maturing rates of youth and its meaning for human relationships. They will be required to comprehend the implications of the vast array of behavioral and attitudinal learnings pupils bring to school with them from other media--television, the movies, the psychedelic dance hall, the adult society itself. And they will need to understand a variety of community subcultures and institutions, both their formal and informal structure. In the political science domain, community power structure is an important topic of study. For some of these areas, the overlapping of category #5 with the other categories is obvious. There are tasks of the teacher technologist implied at this point, e.g., teaching basic political science knowledges and understandings; and there are relationships to the tasks of the developer of talents and aptitudes. The latter, however, is looked on as a nourisher of talents related more to specific disciplines than to the more general area of leadership role and the like. This is not to deny that there may be a talent for leadership.

But study alone frequently does not result in attitudinal and behavioral change. As Jersild has pointed out, in order to understand pupils' attitudes and behaviors and to have impact on them, teachers need first to understand themselves. To achieve better self-understanding on the part of teachers he has recommended broad use of psychoanalysis. This device doubtless has high merit and should be employed to the greatest extent possible, as appropriate. But currently it has limited availability and is costly. Recent experimentation with sensitivity training and group counseling has shown them to have considerable promise for fulfilling some of these needs.

Hopefully, sensitivity training will lead teachers to reexamine their own values in the light of emerging moral and ethical codes of the society, particularly as they relate to children and youth. At its minimal it should result in teachers' ability to put aside some of their inhibitions about verbalizing on sensitive topics, e.g., sex, religion, politics, and to interact less self-consciously with pupils. It should facilitate open, honest exposure of pupils to ideas in these areas rather than protection from them. It is past time to carry on full dialogue in "closed areas of the culture"--areas about which youth converse among themselves and that adults treat jocularly or not at all, but which the two groups are reluctant to discuss with each other. Several of these represent subjects that the social studies curriculum for the most part continues to deal with in an academic and superficial manner, e.g., sex, marriage, religion, morality, nationalism, patriotism, social class, minority-group relations.

When teacher education has prepared the facilitator of attitude and interpersonal behavior development, through better understanding of self, to better understand, respect and be willing to interact about a variety of value and attitude patterns he will then need to be educated to work with pupils in these areas. Teachers involved in such tasks will need to be able to provide sensitivity training and group counseling-type experiences for their pupils. They may not necessarily need to be fully prepared as psychologists (there is some evidence that professionals outside the field of psychology can learn to conduct sensitivity training at least as well as the psychologists). It was pointed out in a preceding section that classroom teachers in some schools have successfully introduced sensitivity training and group counseling into their programs. Obviously, they will require special preparation in order to do so extensively and precisely, preparation that goes beyond their own exposure to the process.

Other skills will be required of the category #5 teacher related to carry on group process and teaching pupils group process techniques. As with sensitivity training, teachers will need first to learn better how to do it themselves, and then how most appropriately to engage pupils in developing the techniques. Teacher education activities already detailed in several studies (Miles, 1962), will be important in this respect. Some teacher education programs already include the development of such techniques as role-playing, psycho-drama, and the use of sociograms.

With sensitivity training, both teachers and administrators will require exposure. Since one of its outcomes should be to render the total school organization a more open society, the posture of the administration is an important factor in making operative whatever revised attitudes and behaviors classroom teachers attain through the t-group process.

For carrying on the tasks related to both sensitivity training and group process, appropriate content and skill will need to be applied from the emerging discipline of communication. There is useful material for teacher education in communication theory (Barnlund, 1963) and non-verbal communication (Hall, 1959). Like sensitivity training, the entire school staff including administrators and supervisors will require preparation in these skills and knowledges so that vertical as well as horizontal channels are affected. The organization of the school itself, formal and informal, intra-staff and pupil-staff, should be developed as a model communication system based on the best that is known in the field.

Study alone of the political, social and economic aspects of the community will not be sufficient if teachers are to help pupils become actively involved as suggested in a previous section. Teachers themselves will need to be active in communities as part of their pre-service preparation and remain active as a part of continuous in-service and teaching performance. It has already been suggested that pupil involvement include local government, social agencies, and organizations in the private sector. Teacher involvement should include these same agencies. But participation on the part of both pupils and teachers must go beyond the local community, even beyond the state and national community.

It was pointed out in the section on required pupil activities that extended periods of living in different cultures is appropriate for pupils; it is appropriate for category #5 teachers as well. Promising programs are just now emerging in which American teachers live and work abroad in close proximity to teachers, pupils and other overseas citizens in arrangements based on such models as Crossroads Africa, the Experiment in International Living and the Peace Corps. A plan has been recently proposed by which 50,000 student teachers would annually spend a year abroad working, teaching and participating in the affairs of other cultures (Taylor, 1967).

A Summary of Required Attitudes and Proficiences of the Category #5 Teacher

A review of the tasks that are incumbent upon the facilitator of attitude and interpersonal behavior development points to several areas of attitudes and skills that are required for the developer himself. Some of the attitudes are:

1. Amenability to opening closed areas of the culture.
2. Open-mindedness toward the changing moral and ethical codes.
3. Acceptance of changing maturation rates of pupils in the direction of earlier development of adult patterns.
4. Commitment to "learning by doing" as a major means of developing interpersonal skills.
5. Acceptance of pupil participation as appropriate for a broad range of decision-making activities related to school operation.
6. Commitment to the necessity for teacher self-understanding as a prerequisite to fostering interpersonal attitudes and behaviors in pupils, and acceptance of the potential of a variety of psychological devices for this purpose.
7. Valuing group process as an important tool for decision-making.
8. A commitment to open inquiry on the strengths and weaknesses of our society vis-a-vis other societies. Willingness to consider the possibility that it is not the major purpose of the schools to produce just loyal patriots but to develop objectively critical thinking citizens.
9. Belief that international goals are as appropriate as national goals for concern and efforts of American citizens. Acceptance of American culture as one among many that have valid moral and ethical codes and behavior patterns.

Required skills include those that are general (Miles, 1959).

1. Sensitivity -- The ability of the teacher to notice, and to be confident in what he notices.
2. Diagnostic Ability -- The ability to understand why individuals behave in specific ways in given circumstances.

3. Action Skill -- The ability to assist in bringing the needed function into operation.

Those that are specific such as:

1. Group process including non-directive approaches to leadership; role playing, role analysis; guiding practice in group work.
2. Conducting sensitivity training.
3. Group counseling techniques.
4. Community action.
5. Relating to other nationals and other cultures.

Several of these skills and attitudes are useful tools for teachers in all five of the categories in the model. But specialization is a fact of life in education as in other segments of the society; and increased specialization is almost natural law. Therefore, the specialists in physics or foreign language might not be expected to develop these skills and attitudes in high degree; but it is hoped that they, too, will have some understanding of and commitment to them.

Some possibilities have been presented for kinds of teacher-education (and reeducation) activities required in order that the category #5 teacher attain those capabilities necessary for contributing most to pupils in the development of interpersonal attitudes and behaviors. Some have been omitted; others unquestionably have not been thought of. What seems patently clear is that the emphasis and content in programs of teacher education must undergo substantial revision if teachers are to be prepared to meet the requirements of the emerging society and its interpersonal character as described by a prominent social scientist (Farson, 1966):

> "The superior man of the future will be the person who can cope with a world without work. This person will not be able to depend upon the Puritan values of hard work, welf-denial, and service to others for his self-esteem. He will prize his ability to relax, to contemplate, to attend to the world around him, to create, to fashion things, to be aware of his inner feelings, to enjoy others, to be what he is, to live in the present."

A DIFFERENTIATED STAFFING MODEL

H. W. Handy

There are many strategies that could be employed by a school district to implement a differentiated staffing model based on changed roles and responsibility. The major criterion to be considered is the uniqueness and particular needs of the school system. The model detailed below represents one approach that might be considered.

In this model, the reorganization of staff would be based upon skills demonstrated by the teacher and the level of program decision-making. It would not be centered around a fixed pupil-teacher ratio or upon the self-contained classroom, nor would it be based upon senior or accumulation of college credits. Career advancement would be dependent upon involvement in program needs and interaction with students.

The proposed staffing model is conceived for an elementary school of at least 300 pupils.[1]

Program Leader

1. This member would be primarily responsible for translating the district's goals into objectives by the school building staff. He would assist the Administration and Board in clarifying and rank ordering goals for the district.
2. He would organize the staff in such a way as to organize programs to accomplish objectives and target outcomes.
3. He would be responsible for identifying elements needed for accomplishing programs and program outputs.

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[1] This model was developed by Dr. Patrick Lynch, Professor of Educational Administration at Pennsylvania State University and the writer. It has since been refined and is available in published form.

4. He would assist in the development of processes necessary for monitoring program and its output. He would help to design the appropriate evaluative methodology.

5. He would lead the team of professionals to determine maximal use of those professionals to accomplish the programs identified.

6. He would interpret the program to the District Administration, Board, and School Community.

7. He would provide feedback from program and learning output to the District Administration and Board.

8. He would seek whatever outside assistance is needed by the professional staff for required expertise.

9. He would help evaluate fellow professionals in the team. As Team Leader, he would cause continuous evaluation of professionals within the staff. He would help the district build a staff evaluation system.

10. He would provide a continuous flow of feedback on learning output to the building staff.

11. He would be responsible for developing Program Budget with the technical assistance of the School Manager for the school. The Program Leader and his professional staff would build the program, estimate its cost and submit it to the district administration. When the program cost was approved by the district administration, the major allocative functions would already have been made. The School Manager would then be delegated to implement the budget in the school.

12. He would be evaluated by his own staff and by the district administration on the basis of the attainment of his subsystem's output.

13. He would be a year-round employee. His position would be at the top of the reward scale. His skills could allow him to become a District Program Leader.

School Manager

1. This staff member would be on the team to see that the Program Staff functioned with least possible concern about logistics. His direction would come primarily from the Program Leader. He would be accountable to the district administration also for routine management matters. His task is to serve the professional team so that they can secure maximum output from the program.

2. He would execute the program budget agreed upon by the professional team of the school and the district administration. He would carry out the allocation function according to the budget document. He would not have the power of decision over internal allocations of money or resources.

3. His tasks include:

    a. Building maintenance.
    b. Records management.
    c. Materials and equipment management and accountability.
    d. Transportation.
    e. Gathering and presenting cost data.
    f. Assisting the Program Leader in building program budgets in whatever way his services are requested by the Program Leader and his professional team. He would not make the budget but would use his expertise in helping translate program statements into dollar figures and other resources.
    g. Getting materials, supplies, and equipment to the appropriate places and people.
    h. Preventing bureaucratic procedures from interfering with the program process.
    i. Maintaining inventories and supply levels.

4. He would feed data on resource and dollar availability to the Program Leader and staff so that they would know each week how much resources remained for each program.

5. He would provide necessary maintenance and cost information for the Central Administration for accountability purposes.

6. He would be a year-round employee. He would not be in a step on the program career ladder.

7. He would be evaluated primarily by the Program Leader and the professional team, and secondarily by the district administration.

8. He evaluates maintenance and custodial personnel serving the school.

Programmer

1. This professional level is directly under the Program Leader in the career ladder. The Programmer is evaluated by the Program Leader and is responsible to him.

2. The Programmer adapts conceptual areas to proper sequences of learning patterns.

3. This professional plans branching in the program tasks so as to adapt to different learning speeds and power.

4. A Programmer plays a leading role in translating district goals into learning objectives.

5. The Programmer advises the Program Leader when to seek outside expertise in adapting conceptual areas to program requirements.

6. The Programmer demonstrates the program sequence and branching capability to Instructors and Assistant Instructors.

7. He translates feedback experience from previous programs and student learning evaluations into the sequence of expected learning behaviors for appropriate levels of student achievement and ability. His professional behavior must be modified and influenced by the Diagnostician and the Instructors.

8. This person decides when and how to use technological applications in the programs.

9. The performance of this staff member is evaluated by the Program Leader and the Instructors on the Professional Team.

10. The Programmer evaluates Instructor and Assistant Instructor performance. He also assists the Program Leader in evaluating the School Manager.

11. His term of employment should be for at least 9 months, or more if the district can provide the resources.

Diagnostician

1. This professional operates near or at the same level as the Programmer. He consults with the Programmer in order to build programs adapted to student characteristics such as learning speed, conceptual power, verbal ability, experience background, and prior achievement level taken into account.

2. He advises the Program Leader and the staff on student characteristics so that program sequences and branching are properly designed and executed.

3. He provides data on a student's background and achievement of the student, to the staff, to the parents and to the district administration .

4. He monitors the learning system to determine whether each student is accommodated in the program branches provided.

5. He along with the Program Leader directs the staff in designing the evaluation system for the program.

6. He organizes and administrates the feedback system for student learning output to the staff and district administration.

7. He interprets the subsystem evaluation program to the district administration and coordinates it with any additional district information feedback requirements.

8. He sees that liaison between teachers and parents is provided for and maintained. He assists the Program Leader in interpreting programs to the community.

9. He works under the direction of the Program Leader to monitor the output of the instructional system.

10. He helps the Programmer design a program which is oriented to occupational preparation.

11. He employs technology to assist in system and student evaluation and advises the Program Leader and Programmer in selecting instructional technology.

12. He helps evaluate the School Manager, Instructors, and Assistant Instructors, as well as the Programmer.

13. He is evaluated by the Program Leader primarily, and secondarily by the Programmer, Instructors and Assistant Instructors.

14. He is employed for nine months.

Instructor

1. This professional helps the Programmer and Program Leader select conceptual areas to be programmed. Instructors collectively recommend conceptual areas to be programmed according to the objectives established for the school.

2. The Instructor works under the direction of Program Leader and Programmer in the process of district goals into objectives for the school.

3. The Instructor reduces broad objectives into smaller scale, operationalized objectives.

4. The Instructor helps the Programmer design programs to accomplish long and short-range objectives for the school.

5. He diagnoses the individual pupil's characteristics and prior learning output.

6. He adapts a program to the individual pupil based upon the pupil's learning characteristics.

7. He modifies the program with the help of the Programmer to his pupil's learning characteristics.

8. He searches for new materials that assist the program's conceptual sequence and thrust.

9. He monitors pupil learning process and output and reports it to the Diagnostician and Programmer.

10. He uses technology selected for the program and adapts it where necessary to the learner.

11. With proper knowledge and experience, he advises the Programmer on the feasibility of technology in programs.

12. He is evaluated by the Programmer and Diagnostician.

13. He assists the staff in evaluation of the Program Leader, Programmer, School Manager, and Assistant Instructors.

14. He and the Assistant Instructors evaluate the sub-professionals.

15. He must have a strong competence in at least one subject matter area before forming the professional team.

16. He serves for a nine-month period.

Assistant Instructor

1. This staff member works under the direction of the Instructor and the Program Leader.

2. The chief duties of this professional are to work with individual students and groups of students as dictated by program design. These duties include:

   a. Adapting technology to the individual or group, when necessary, under Instructor's direction.
   b. Monitoring student progress through the program sequences and branches.
   c. Administering pre and post-test measures and other required observations on student learning patterns and reporting these to Instructors.
   d. Counseling with students in overcoming learning difficulties.
   e. Securing and using additional materials to enrich a sequence, or to fill in conceptual gaps.
   f. Reporting to the Diagnostician any unusual new data on the individual's learning experience.
   g. Shifting students from one branch to another with the consent of the Instructor and Diagnostician.

3. He implements the technology chosen for the program.

4. He secures new materials and seeks new technology applicable to the programs.

5. This staff member helps the Instructor identify and define conceptual areas relevant to the school's chosen objectives.

6. He involves students in the discussion of existing and proposed learning objectives and reports these findings to Instructors.

7. With the other professional staff the Assistant Instructor helps translate district goals into objectives and helps operationalize objectives into short-term learning targets.

8. He suggests modifications in the program evaluation plan to the Instructors and the Programmer.

9. He helps the Diagnostician design a school evaluation program for individual students.

10. He is evaluated by Instructors, Programmers, Program Leader, and Diagnostician.

11. He helps the staff evaluate the Program Leader, Programmers, School Manager, Diagnostician and Instructors.

12. He along with Instructors, evaluates the non-professionals.

13. He must demonstrate a strong competence in at least one subject matter area.

14. He is on duty for 9 months.

Instructional Materials Specialist

1. In terms of responsibility and salary compensation, this professional team member functions at the Assistant Instructor or Instructor level. Primarily his role is to provide effective backup for the teaching-learning team by supplying learning materials for the use of professionals, sub-professionals, and students.

2. Searching for (and obtaining) new materials and technology and reporting on their possibilities and relevance to the program area to all professional team members is a high order demand for this person.

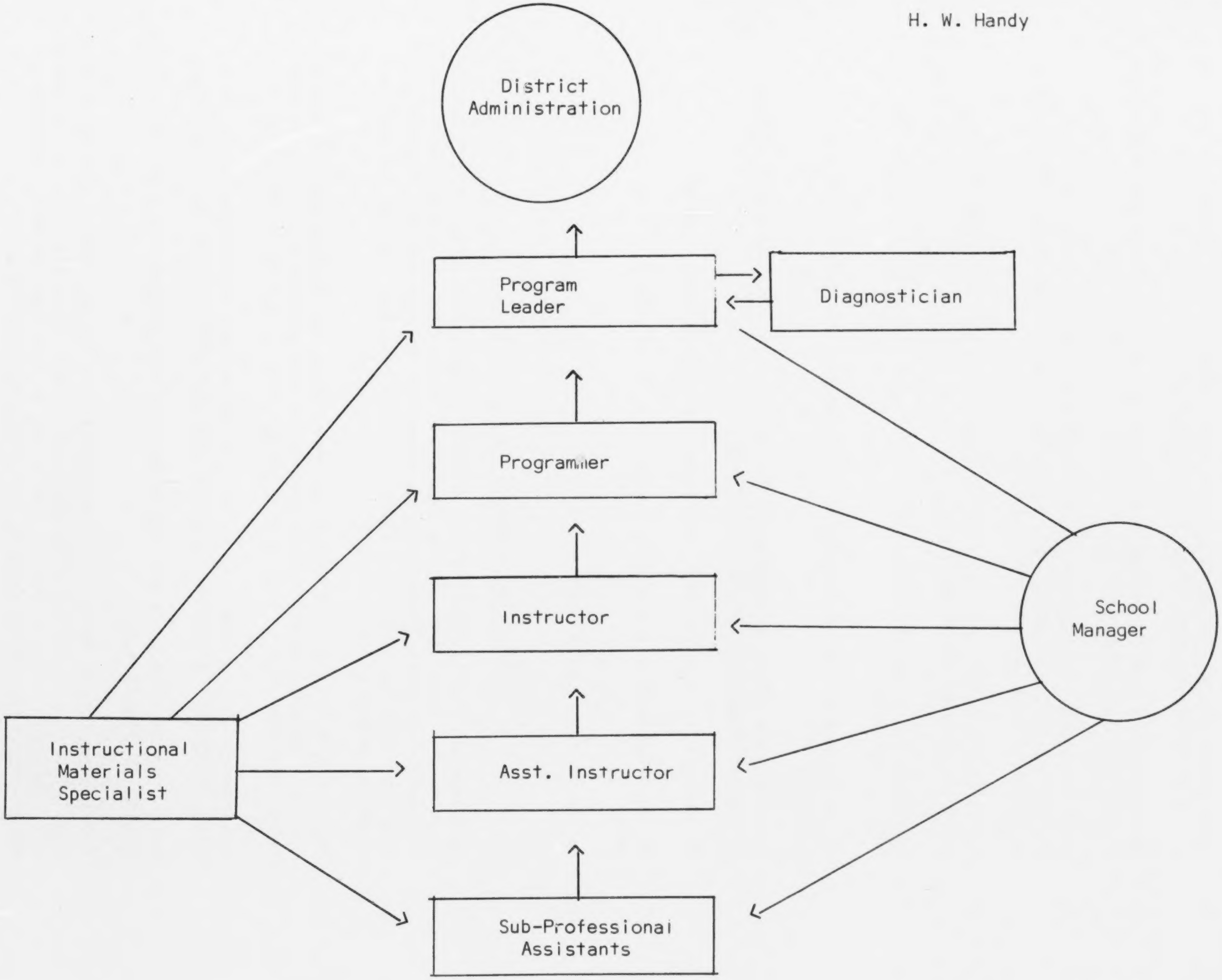
3. Management of the learning materials center and inventory so as to make it maximally useful to staff and students is next in importance.

4. Assisting in arranging the technology to the program is a skill needed by the IM Specialist.

5. The Instructional Materials Specialist is a person whose duties must be organized toward making programs work. This specialist is not running his (her) own program but is assisting in the team effort. Guarding materials or hoarding them is not expected behavior.

Flow Chart Depicting Differentiated Staffing Model

H. W. Handy


District Administration
Program Leader
Diagnostician
Programmer
Instructor
Asst. Instructor
Sub-Professional Assistants
Instructional Materials Specialist
School Manager

B. Commentary

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TEACHER MAY I? TAKE THREE GIANT STEPS!
THE DIFFERENTIATED STAFF

Fenwick English

How many steps may we take, teachers, toward a differentiated staff? The question is asked by such groups as the Citizens League of Minneapolis-St. Paul,[1] NCTEPS of the National Education Association,[2] the Committee for Economic Development,[3] and the federal government under the Education Professional Development Act (EPDA).[4] The push toward a redefinition of the once generic role of the classroom teacher is accelerating, and it comes from many levels of influence. The emerging trend is encouraged by stiffening public resistance to school tax measures, continuing teacher shortages in the inner city, the lack of a career ladder for classroom teachers, and the low prestige of teaching, coupled with the pervasive torpor of life in the old school house.

Economist Milton Friedman characterized the dominant remunerative scheme of the public schools: "If one were to seek deliberately to devise a system of recruiting and paying teachers calculated to repel the imaginative and daring and self-confident and to attract the dull and mediocre and uninspiring, he could hardly do better than imitate the system of requiring teaching certificates and enforcing standard salary structures that has developed in the larger city and statewide systems. Our problem today is not to enforce conformity; it is rather that we are threatened with an excess of conformity. Our problem is to foster diversity..."[5]

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[1] "Stretching the School Salary Dollar: How a Redefinition of the Teacher's Job Can Ease Problems for Minnesota Teachers and Taxpayers," Citizens League Report, Minneapolis, August, 1969, 28 pp. (mimeographed).

[2] Roy A. Edelfelt, "Remaking the Education Profession," NEA Reporter, November 8, 1968.

[3] Committee for Economic Development, "Innovation in Education: New Directions for the American School." New York: The Committee, July, 1968.

[4] Harold Howe II, The People Who Serve Education, A Report on the State of the Education Professions by the U. S. Commissioner of Education, 1968, Washington, D. C.: U.S. Government Printing Office, 1969.

[5] Milton Friedman, Capitalism and Freedom, Chicago: University of Chicago Press, 1962, pp. 96-97.

The break with a monolithic educational structure built from the ground up on the assumption that one teacher could be all things to all children is a task of the first magnitude. The real problem of educational innovation today, despite the resources expended on refining it in the past, is the teacher and his unmanageable role. We have tried to upgrade education by giving it a shiny finish, but the teacher's role cannot be substantially modernized unless it is divided into more specialized components and improved skill by skill, responsibility by responsibility, rather than in its entirety.

How does one change a total structure? Should it be attempted in a series of small "manageable" pieces, or should change be sweeping, dramatic and bold? Richard Farson quips, "Everyone knows how to resist small changes; they do it all the time. If, however, the change is big enough, resistance can't be mobilized against it. All change is resisted, so the question is how can the changes be made big enough so that they have a chance of succeeding?"[6] A bold reform of public education must be based upon conceptualization of as many of the key issues and principles as possible in order not to have it fail because crucial interrelationships and outcomes were ignored or not anticipated. Because of the newness of the idea and lack of real experience with differentiated staffing in the field, the following points may prove of some assistance for educational leaders who are now in the planning stages in their own school systems.

Interrelationedness of Roles

The role of the teacher may be discussed and analyzed in isolation, but actual changes must anticipate role changes of many other personnel. Roles are highly interrelated within organizations. The "domino theory" may be defunct in foreign affairs, but it is certainly relevant to considering functional changes in organizational roles. Many administrators naively assume that a "super-teacher" position can be created without affecting them. Field practice suggests that the first roles to be changes with differentiated staffing are those of the so-called "middle management" level; principals, coordinators, supervisors, and directors. This fact also accounts for greater resistance to the concept from those in middle management roles than from other administrative levels in school systems.

The 'Iceberg' Phenomenon

Staffing patterns appear on the surface to be rather manipulable relationships. After all, we have dealt with pupil-teacher ratios for some time in education. In fact, it has become a fettish of sorts. However, educators have not probed deeper in discussing changes in staffing patterns. For example, what are the basic assumptions underlying a passive role for the learner and an active, telling role for the teacher? Doesn't the present role definition rest heavily on the assumption that there is a fixed body of knowledge best for all students which the teacher knows and the student doesn't? Aren't most classrooms arranged as one-way communication networks? Schools stress verbal behavior in lieu of real behavior. The common Friday quiz is the best example of this. A staffing pattern is a concrete manifestation of philosophical positions regarding the nature of knowledge, the nature of learning and teaching, and the nature of man. How the knowledge assumption is answered determines to a large extent the roles of teacher and learner. Tinkering with pupil-teacher ratios or introducing "team teaching" rarely alters these basic philosophical positions. Much more pervasive is the answer to the question, what motivates man? The scientific management school of Frederick Taylor based its assumptions on the economic motive. Man's behavior could be changed by the extrinsic application of salary for rewards and punishment. While salary looms large in much of the discussions regarding a career ladder in teaching, research suggests that salary is not the real issue.[7] Giving men handsome raises does not necessarily guarantee job satisfaction. The more powerful motivators are achievement, recognition, and responsibility, or the "self-actualizing" incentives.[8] Discussions of differentiated staffing which ignore these variables deal with the problem only at the "waterline" level. Real changes in patterns of staff utilization will mean reexamining many a priori assumptions usually left untouched by innovators dealing with organizational changes.

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[6] Richard E. Farson, "How Could Anything That Feels so Bad Be so Good?" Saturday Review, September 6, 1969, pp. 202-21.

The Hierarchy Hangup

One of the most controversial issues affiliated with the idea of differentiated staffing is that of a teacher hierarchy. Much fear is aroused based upon the profession's past experience with the long-powerful administrative hierarchy. Teachers are apprehensive that the creation of a career ladder of different positions based upon varying responsibilities will produce even closer supervision and tighter control than exists at present. This is partly due to the fact that many find it difficult to conceptualize the teaching act in any other format than variations on the self-contained classroom, whether at the elementary or secondary levels. Many administrators are anxious for the same reason. Douglas McGregor[9] found that conventional organizational theory is governed by a single, all-encompassing idea, "that authority is the central, indispensable means of managerial control. Most of the other principles of organization, such as unity of command, staff and line, span of control, are directly derived from this one." To propose changes in roles and in authority, moving it from organizational authority vested in a position to one vested in technical competence means expanding the teacher's voice within the structure. Since role status is governed by how much authority is attached to it, a loss of authority is viewed as a loss of power and status. Under a differentiated staffing scheme, the teacher's new and stronger voice in directing the allocation of resources of the organization is not considered as a force for democratization, but rather of tightening the bolts by creating a split in the ranks. This is why some union leaders find the concept threatening: It violates the classical labor-management perspective and with it our assumptions regarding the dispersal of authority.

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[7] Frederick Herzberg, Bernard Mausner and Barbara Snyderman, The Motivation To Work. New York: John Wiley, 1959.

[8] Abraham Maslow, Motivation and Personality. New York: Harper and Row, 1954.

[9] Douglas McGregor, The Human Side of Enterprise, New York: McGraw-Hill, 1960.

The Quest for Efficiency

Rising school costs have been reflected in citizen groups urging fewer "frills" and more concentration upon the "basics." Recently a trend has developed toward business techniques such as cost-benefit and cost-effectiveness analyses applied to education. There is widespread belief that the application of a new organizational technology will make education better by making it cheaper. Some school boards unabashedly offer differentiated staffing as a tool by which some teachers are finally "paid what they are worth." There is little real difference between their perspective of differentiated staffing and merit pay.

The lack of specific organizational objectives for education is a major handicap. How can efficiency be determined if the output of an organization's expenditure of resources cannot be defined to accomplish specified ends? Costs continue to increase, but what difference they make is never understood by the public. What different results are attained? The public perceives only that the organization is perpetuated for another year. In the absence of clear performance objectives, cost effectiveness usually means "cheaper."

The American predecessor of staff differentiation was the Lancastrian school of the Middle Atlantic and Southern states during the period 1800-1840.[10] The Lancastrian model placed approximately 200 - 1,000 pupils in one large room with a teacher and several "monitors." The monitors were usually older pupils. Stephen Duggan[11] notes that the widespread adoption of this innovation resulted from its "cheapness." Says

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[10] Henry J. Otto. Elementary School Organization and Administration. New York: Appleton-Century-Crofts, 1954.

[11] Stephen Duggan. A Student's Textbook in the History of Education. New York: Appleton-Century-Crofts, 1948.

Duggan, "As late as 1834, in Philadelphia, there was but one teacher to 218 pupils and the cost per pupil never rose above $5 per annum."[12] An analogous situation would no doubt prevail today if the differentiated staffing notion were offered primarily as a device for providing cheaper education, offering a few high salaries supported by many at a subprofessional level.

Differentiated staffing is a means, not an end. It is one vehicle among many to realize some kinds of educational outcomes very difficult and costly to attain today under a traditional staffing pattern little influenced either by teacher or pupil differences. An adequate needs assessment of pupils, teachers, and community must accompany a differentiated staffing plan. A measurable set of organizational indices must be developed by which efficiency can be assessed in results accomplished.

The Inadequate Research Base

The present staffing pattern of public education was not derived from the conclusions of research. Our educational forefathers did not set up model schools with varying staff designs, define outcomes, and systematically measure organizational effectiveness, selecting for adoption the most effective and efficient design. The graded school was established for administrative expediency and to this day lacks an adequate research-proven base. Moreover, a deep network of vested interest has developed from this nonresearch base. Authority does not necessarily derive from technical competence. Examining the educational establishment's treatment of the Coleman Report, Daniel Moynihan noted its almost overwhelming silence and hypothesized that it was due to the "absence of a tradition of basing educational practice on research findings."[13]

Research is a rational process, through far from perfect in its ability to eliminate error. Nonetheless, its methodology and spirit are alien to practices and procedures based upon irrational authority. Reexamination of the teacher's role within the organization poses danger to a school system because it may mean establishine one role on a rational basis and therefore it portends changing all roles. A staffing pattern, one level of a role network, is a manifestation of the total control system of the organization. As long as the control system is irrational, so must be the staffing pattern. No matter how rational models are in the developmental stages, once the transition is made to the ongoing organization, they may be totally changed to become congruent with the old organizational climate and structure. Without the utilization of research and field development in education, issues tend to be resolved via politics and other pressure tactics rather than by what is actually better for children. Dan Lortie[14] has described the method of arriving at consensus as a "continuing constitutional convention... which does nothing to advance techniques of evaluation." Shabby practices and educational myths are perpetuated from year to year. Research, not tradition, must be the process by which innovations are judged.

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[12] Ibid.

[13] Daniel P. Moynihan, "Sources of Resistance to the Coleman Report." Harvard Educational Review, Winter, 1968, pp. 23-36.

The Necessity for Involvement

If staff differentiation involves a change in behavior on the part of the teacher, as it surely does, teacher involvement must be secured from the outset. Many administrators assume that changes in teacher roles can be foisted upon teachers via administrative mandate. Human behavior is not that malleable. In such situations, behavior which is easily modifiable is usually quite superficial. The incongruity of the situation is this: Authoritarian means cannot create democratic ends. The very fact that an edict was used to create the model stimulates enough suspicion to make plans almost unworkable.

Under intense pressures resulting from the state-wide teachers' walkout in 1968, the Florida legislature passed Senate Bill 70X, which mandated field models of differentiated staffing within one year. A year later, after careful consideration, the legislature wisely backed away from "instant" implementation and instead appropriated funds to establish a systematic research and development thrust in the state. The State Department of Education expects that three field models will be in operation next year. Other state legislatures have not been as judicious. Many confuse differentiated staffing with merit pay and have passed bills mandating merit pay for entire states. Such plans are doomed to failure. Historically, they have had little effect on the educational mainstream. With the growth in power of teacher associations and unions, any plan which deals with issues of teacher pay, status, and career opportunities cannot ultimately win a place in the establishment without the approval of organized teacher groups. Differentiated staffing offers an exciting alternative to merit pay, but teachers must be part of the needs assessment, design, and evaluation stages if any real breakthroughs are to occur. Differentiated staffing can be a vehicle by which the status of teachers is upgraded and the learning of pupils is increased. However, conceived merely as a salary strategy rather than a plan of staff utilization, it offers no major alternative to the status quo.

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[14] Dan C. Lortie, "The Cracked Cake of Educational Custom and Emerging Issues in Evaluation," from the Proceedings of the Symposium on Problems in the Evaluation of Instruction, December, 1967. CSEIP Occasional Paper No. 19, Los Angeles: University of California, Center for the Study of Instructional Programs (Offset)

Instructional Support Systems

Various administrative and technical support systems back up the teacher on the firing line. The teacher must have instructional materials, books, paper, pencils, technical equipment, etc. In the past the instructional support systems have assumed that instruction was group-centered; teachers were expected to use textbooks and grades somehow to provide individualization of instruction. It is ironic that the school has attempted to individualize instruction by assessing the vast differences in pupil ability, environmental conditioning, verbal skills, etc., but generally denies to the teacher, at least in elementary school, the very same analysis of differences in ability to meet those needs. It would be analogous should general practioners attempt to solve all medical problems. If the teacher's generic role is changed, so must the auxiliary support systems which are auxiliary to the teacher. A multi-dimensional differentiation of staff demands multi-dimensional support systems.

A Model Is Not a Model

Models of staff differentiation being developed across the nation share some common characteristics and differ from each other in important ways. There appear to be four basic modalities. Some planners begin from a curricular viewpoint, emphasizing staff deployment to reinforce previous philosophical assumptions taken regarding "subject matter." Other models emphasize a refinement in teaching as it is conceived today, that is, they polish the "telling" functions of teaching by adding different instructional media or programmed instruction. Still other models are organizationally oriented, stressing organizational relationships and changing roles without much regard to the individual personalities occupying old roles. Using learning theories as a focal point for a staffing patter is still another tack.

Models may be classified as 1) learning paradigms of staff differentiation, 2) teaching paradigms, 3) curricular paradigms, and 4) organizational paradigms. In real life, to be usable, models would actually embrace all four areas. Important variations currently exist even on paper, because some planners emphasize certain modalities at the expense of othersl Careful study should be given to local needs and major assumptions should be listed so that all participants understand why some model components are being emphasized over others. This paradigm basis should be noted when studying or visiting actual models.

But most models being developed today are not extensions of staffing relationships based upon learning theories. Instead, they use many of the traditionally accepted divisions of responsibility in separating teacher functions, such as responsibility for the development of curriculum, versatility in handling instruction with varying group sizes, and organizational or administrative duties. Instead of breaking such duties off completely from the teaching role, most models attempt to blend direct teaching duties with other types of responsibility in flexibly scheduled schools and utilize extended school year contractual engagements for hierarchical personnel above the staff teacher level. As models become more sophisticated in separating teacher responsibilities, differentiation of actual classroom skills and abilities will become sharper and more viable. Meanwhile, the early prototypes differentiate roles on gross variables. However, teacher acceptance will rest to some extent on how visible the "differentiated" functions are. Ultimate acceptance must be based upon research designs which answer the question, "How valuable are such delineations between teachers in achieving certain specified student outcomes?"

Confronting the Risk Element

William Fielder[15] avers that teaching is viewed by many aspirants as an "insurance policy." So long as people entering education are heavily security oriented, innovation which proposes to change the present role definition of "teacher" is considered hazardous. Any change involves risk taking. The current undifferentiated organization offers a haven for the incompetent and for those with a low tolerance for risk taking.

Key elements which determine resistance to risks are the size of the school system and its dominant organizational climate, age of the staff, and the degree of freedom permitted to individual schools within the system to change their internal structures. Much internal friction can result from allowing major deviations to occur within school systems, but how else can ideas be field tested prior to wholesale adoption? During such transition stages a valuable and necessary function of the administration is to shield innovating schools from system pressures toward conformity, and from public anxiety over "experimentation." The administration can also prevent premature evaluation and premature judgments from closing down field models before they are actually permitted a fair chance to prove their worth. Risk can be minimized but not eliminated. There will be greater tension and stress during times of change. Rather than attempt to suppress friction and hostility produced by the change, the administrator can devise "institutionalized lightening rods" to relieve excess pressure. Without this outlet, models may fail not because they were actually worse than the traditional staffing pattern, but because the normal inability of the human being to handle change was not anticipated.

Recommended Sequence of Events

Regardless of the model developed or the particular models it stresses, there does appear to be a sequence of activities which produces more acceptable models than others. These steps are:

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[15] William R. Fielder, "Albuquerque," Remaking the World of the Career Teacher, National Commission on Teacher Education and Professional Standards, National Education Association, Report of the 1968 Regional TEPS Conference, Washington, D. C., 1969, pp. 1-15.

1. Systematic assessment of needs (Societal, student, teacher, and community).
2. Formulation of global educational goals from the needs assessment.
3. Construction of specific and measurable learning outcomes working back from the global statements.
4. Separation of learning tasks from each learning outcome into common categories (Appropriateness, level of difficulty, etc.).
5. Relating of learning tasks grouped in common categories to teacher skills, knowledges, and attitudes in producing the specified outcomes.
6. Reclassification of teaching tasks into vertical and horizontal role hierarchies.
7. Establishment of salary ranges for each proposed hierarchical role based upon supply and demand, level of training and experience needed, etc.
8. Determination of specific changes in the school structure for the new roles to be utilized to the maximum (includes school schedule, decentralization of instructional resources in resource centers, and other support systems).
9. Establishment of personnel policies to apply during the transition and ultimately
10. Establishment of screening groups, screening criteria, evaluation procedures, and the filling of positions.

Involvement of teachers, their associations, and students will be critical ingredients. Involvement and consensus building will be frustrating and time consuming, but without them there is little hope of permanency. It is during this time that resistance can be overcome and support from key people and groups established which will enable the model developers to transfer their model from a theoretical paradigm to a real-life school situation. The larger the school system, the longer this process will take. There are a few shortcuts. Administrators most often want to reduce or bypass staff involvement during the planning and design phases. In the two or three large city systems where differentiated staffing has failed before implementation, this was the major reason.* In reality, as in the old game, "Teacher May I?" teachers must be asked to win. "How many steps can we take?" The number and results will depend upon how well the variables discussed are utilized.

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* Differentiated staffing failed initially in Dade County (Miami), Florida, for this reason. In trying again, Dade County leaders are obtaining greater staff involvement. In Montgomery County, Maryland, differentiated staffing was one of the issues over which a teacher strike occurred . In Los Angeles differentiated staffing was tried merely as a salary proposal without change in organizational structure. Good staff involvement is being secured for this innovation in three districts now: Beaverton, Oregon (near Portland); Sarasota County, Florida; and Niskayuna, New York. The change has actually been implemented only in Temple City, California, and Kansas City, Missouri.

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DIFFERENTIATED TEACHING RESPONSIBILITIES IN THE ELEMENTARY SCHOOL

William D. Hedges

> Either we must settle for a moderately prepared teacher in every classroom, salaries that hover close to national averages for all occupations, and recruitment--at best--from the top third of the high school graduating class or we must move to some system of differentiated responsibilities and rewards.[1]

The past decade has seen serious and widespread attempts to introduce more and more instruction of an individualized nature into our elementary schools. Yet, ironically enough, while recognition of pupil differences has been growing, relatively little attention has been given to the factor of teacher differences. In fact, and incredible as it may appear, a few school systems have found themselves in the philosophically indefensible position of introducing more individualized instruction almost by fiat and in ways that have tended to ignore or overlook striking differences among teachers in areas such as experience, interest, methods of working with children, training, personality, and teacher preference.

Elementary School Organization

Few of us seriously quarrel with the desirability of individualizing instruction, even though we are keenly aware of the tremendous practical difficulties that tend to prevent our accomplishing as much individualized instruction as we would like. However, to quote Philip Jackson:

> If we have advanced in our educational thought to a position where we view children as individuals, each calling for a slightly different educational action, we continue, nonetheless, to think of teachers as teachers, each the intellectual and psychological equivalent of

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[1] Goodland, John I. Planning and Organizing for Teaching. National Education Association, Project on the Instructional Program of the Public Schools. Washington, D. C.: the Association, 1963, p. 121.

the other.[2]

We provide the vast majority of our elementary school teachers with essentially the same authority and the same responsibility. For example, let us assume for the moment that there are only three major categories, or types, of elementary teachers.

1. Teacher A who has ten years of experience and is recognized by principal, parents, colleagues, and students as a superior teacher.

2. Teacher B who has ten years of experience, is poorly trained, and is considered by the principal to be weak.

3. Teacher C who has no experience, has recently graduated from college with her B. A., and has embarked on her first year of teaching.

I could cite many other classifications of teachers, but these three will suffice for entertaining the question of what responsibilities we assign to teachers who vary considerably in experience and in expertise. In most of our elementary schools, we would make these arrangements:

1. Teacher A will be assigned 34 students in the fourth grade.

2. Teacher B will be assigned 34 students in the fourth grade.

3. Teacher C will be assigned 34 students in the fourth grade.

Whether we are willing to admit it or not, the aforementioned arrangement reveals unmistakeably that Jackson is correct when he claims, "... we continue, nonetheless, to think of teachers as teachers, each the intellectual and psychological equivalent of the other."[3] In short, the belief that a hierarchy of responsibility and authority should not exist within the ranks of elementary school teachers is deeply implanted in the thinking of both faculty and administration. And yet, if I asked you, as a parent, whether you would choose to have your son or daughter in Miss A's room with 68 students, or in Miss B's with 34 students (for an entire year), I think I know what your answer would be. At the least, you would have a mental struggle in deciding and would be sorely tempted to choose Miss A's class of 68, despite the enormous difficulties and disadvantages imposed by such a large class size. And if class size were equalized, there would be no doubt of your decision.

We have not differentiated the extent of responsibility and authority to be exercised by elementary school teachers. Our school organization reflects our assumption that all teachers are essentially alike; hence, they should all have equal responsibilities and equal authority. But such an assumption is not correct. Teachers are not alike. They are individuals, and, as individuals, they are different.

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[2] Jackson, Philip W. "The Teacher and Individual Differences." Individualizing Instruction. Sixty-First Yearbook, Part I, National Society for the Study of Education. Chicago: University of Chicago Press, 1962. p. 76.

[3] Ibid.

Individuality of Teachers

Differences in teacher interest. While most elementary school teachers share a pervading interest in the total development of the child, in contrast to interest in a specific discipline such as mathematics or science, they are nevertheless more interested in one content area than in another. Anyone who visits elementary school classrooms finds this evident. For example, the visitor is apt to perceive that in one room there is considerable emphasis on art; in another room there is the sound of music; in a third there are batteries and wire and magnets; in a fourth there are microscopes, growing plants, and animal cages; in a fifth there are mathematical games, puzzles, geometric constructions, and the like. In each of the foregoing classrooms, the visitor observes clearcut evidences of the teacher having developed his program in Language Arts and Reading around an area of his interest. I think this is natural and to be expected.

In recent years, we have seen attempts to capitalize on areas of teacher interest through such organizational means as team teaching, flexible grouping, semi-departmentalization, and so forth. This leads us to a second significant area of teacher difference which we have tended to ignore; that is, variations among teachers in their actual knowledge of specific disciplines.

The knowledge gap. The knowledge gap between the teacher who has not been back to school for some years and the teacher who has stayed abreast of developments is immense. Increasing demands are being made upon the elementary school teacher in content areas. In fact, so many demands for competence are being placed on him that he is developing extreme feelings of inadequacy and insecurity. We blithely expect the elementary school teacher to:

a) keep abreast of developments in linguistics

b) teach modern mathematics

c) be able to choose among and teach at least one of the new elementary science curriculums such as AAAS or SCIS

d) become competent in at least one of the numerous new social studies curriculums such as the economics-based Senesh program

e) teach reading, including developments in i/t/a, words in color, or other new programs

f) employ cuisenaire rods in primary grades

g) remain abreast of and use recent findings on the physiology of readiness and perceptual development in young children

h) enjoy and be competent in art

i) teach French

j) play one or more musical instruments such as piano or guitar

k) sing

l) be effective with youngsters in gymnastics and have perhaps a smattering of training in modern dance

m) operate movie projectors, tape recorders, overhead projectors, filmstrip projectors, and the like

n) be adequately trained in group dynamics

o) possess the skills of a reading diagnostician

p) have some background in testing and measurement

While this listing is somewhat exaggerated, and while we realize many elementary schools no longer expect the elementary teacher to know all areas, nevertheless the elementary teacher is still expected to possess a great deal of information in numerous areas. For some years now, we have had specialists' classifications in the elementary school that include the librarian, the reading diagnostician, the music consultant, the traveling art teacher, as well as specialists from the fields of speech and hearing, guidance, French, and physical education.

However, while we have recognized the need for specialized knowledge and training in *some* areas, we have not sufficiently recognized the need for specialized knowledge in *many* areas. "Somehow there has developed throughout the grade system a distrust of the specialist."[4]

Differences in teacher competence. A third significant area of teacher difference is that of teaching competence. That differences in teaching competence exist, and that they are of concern to educators is attested to by the thousands of studies over the years which have attempted to rate teacher effectiveness--efforts that have met with either limited or no success. While we know that differences exist, we have been unable to establish reliable and valid means of determining who is a good teacher and why. About all we have been able to accomplish and defend is to differentiate among faculty in terms of years of experience and extent of formal college training. However, this is not to say that most of us as elementary principals are unaware of our excellent teachers. At the very least, and whether right or wrong, most principals are keenly aware of which teachers they would be reluctant to lose.

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[4] Stoddard, George G. "Generalists and Specialists in the Elementary School." *Crucial Issues in Education.* Third edition. (Edited by Henry Ehlers and Gordon C. Lee.) New York: Holt, Rinehart and Winston, 1964. p. 325.

We have put ourselves in the position of being able to make differential rewards only if we could differentiate in competence. Not being able to defend competence outside of the tangible factors of experience and formal training, we have been forced to abandon any differentiation in assignment of responsibility and in financial rewards. We have been encouraged to avoid different responsibility assignments because we have known that mere years of experience and college training are no guarantee of the competence we are seeking. Rather than become mired in the impossible situation of appointing a highly-trained, experienced, but only average teacher to a crucial position of responsibility, we have had to avoid the problem entirely.

And yet, I think many of us would agree that if we had the three teachers, Miss A, Miss B, and Miss C, in our school, we might improve our situation if we could place Miss A "in charge" of the fourth-grade program. Notice I did not say *appoint* Miss A in charge because she is a merit teacher. I said *place her in charge*. We *place* principals in charge of schools. Why can we not *place* teachers in charge of programs? This leads us to a fourth area of teacher difference; that is, differences among teachers in the extent to which they are both able and willing to assume responsibility.

Differences in handling responsibility. It does not follow that the most experienced or the most competent teacher is necessarily the teacher best able to assume responsibility for a program. We tacitly admit this fact by openly recognizing that the principal of a school today is not necessarily--or even usually--the best teacher. Nor is he expected to be. He is expected to be an effective administrator. Perhaps we might have better programs if we could identify and utilize the teacher who has talents in organizing and administering specific programs.

However, let us also face the fact frankly and openly that teachers on many faculties are just not career teachers. Some are fine young wives (often with children) who are helping to support the family. Their primary interest is with their family, and as soon as their husband's formal education is completed, or his earning power increases sufficiently, they will drop out of teaching. These persons do an average job of teaching. But they have neither the time, the inclination, nor the energy to go much beyond the actual teaching day. To read professional materials, to stay late and plan curriculum revisions, to attend professional meetings and the like is not for them.

On the other hand, there are the career teachers--those persons with the enthusiasm, the interest, the energy, and the ability to put far more time into the teaching profession than is required by the teaching day per se. Some of these persons are single; some have raised families and now wish to devote their full energies to teaching once again; and some will raise a family and still have plenty of energy remaining to put into organizing for teaching and into the building of new programs. The question arises then as to whether these differences in willingness and ability to assume responsibility for the direction and implementation of programs are sufficiently recognized in the way our schools are organized today.

Differences in teaching strategy. In all of our schools, we can find a Miss Jones who is extremely well organized, highly structured, very methodical and systematic. And across the hall, we will also find a Miss Brown who is poorly organized, quite unstructured, seemingly sloppy with a room always in a "mess" and who can never teach a lesson the same way twice. Is one right and the other wrong?

I maintain that each teacher probably has a place--but not always with the same types of children. Some children seem to work better with one type of teacher than with another. Other children will benefit from some contact with both. Moreover, all principals have had the experience of extreme incompatibility between a particular teacher and and particular child. The question is whether we can organize our schools to allow for flexible shifting of children, based on differences among teachers in teaching strategy and in personality, without the teacher feeling defensive if a child is moved from his room. Even though he is less effective than a colleague with one child, he may be more effective than that same colleague with another child. Sometimes we cannot know about the effectiveness of our placement procedures until we try.

Specialized Personnel in the Elementary School

If large differences exist among many teachers, and if such differences have direct implications as to how we might organize our schools, we should then introduce into the elementary school program a great variety of specialized positions which recognize the specialized tasks that need to be performed and which capitalize on some of the many differences among the teaching staff.

No one argues seriously anymore for the completely self-contained classroom; it is virtually non-existent. The real questions are: how much specialization, of what nature, how far down toward kindergarten should it go, and how should it be organized? I say this because few elementary schools operate today without calling upon the services of at least one of the following types of specially trained personnel: music teacher, foreign language teacher, art teacher, physical education teacher, mathematics teacher, science teacher, librarian, school nurse, school psychologist, guidance counselor, remedial teacher, reading diagnostician, speech and hearing therapist, school secretary, teacher's aide, teacher-clerk, audio-visual technician, TV teacher, school artist, school custodian. (I include the school custodian because in the early history of our country, the teacher did the custodian's job, too; also a good school custodian has frequent contacts with children and can exert a very salutary influence upon them.)

Coupled with the above degrees of specialization, we have seen during the existence of the elementary school in this country a tremendous array of organizational practices that reflect cognizance of teacher differences. These include departmentalized and semi-departmentalized plans, and the more recently emphasized team teaching arrangement, to mention only three major types of organization.

Departmentalized programs were designed to enable teachers with special content interests and knowledge to work with more groups of children in that area, whether it be science, math, music, etc. However, in team teaching:

> The senior teacher assumes responsibility for instructional leadership--both in his team and, if needed, across teams within the building--in the area of his special competence.... The team leader also has primary responsibility in his team for the identification of pupil needs and readiness and for the assignment of pupils to groups; for directing the continual re-examination and development of the curriculum; and for the training and supervision of junior and less-experienced personnel on his team.[5]

I could cite page after page of organizational plans that have been tried and are being tried, not to mention the plethora of grouping plans that have been employed over the years. However, the point is that specialized personnel are with us in the elementary school, and the number and types of these specialized personnel are going to increase very rapidly over the next decade. Some of the newer special types now being introduced include: the multi-media technician, the school artist for preparing tansparencies, the persons preparing lessons for closed circuit television, teacher aides, teacher-clerks, the specialist in diagnostic testing in content areas, the writers of locally needed materials for computer-assisted instruction, the expert in the field of educational testing and measurement, and the reading diagnostician.

Hence, the need for highly specialized personnel is here and is being recognized in many schools. The question that we must face in all seriousness is: How do we organize? How do we relate these persons to each other for the goal of improving the educational environment of each youngster?

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[5] Anderson, Robert; Hagstrom, Ellis A.; and Robinson, Wade M. "Team Teaching in an Elementary School." Change and Innovation in Elementary School Organization. (selected readings) Compiled by Maurie Hillson. New York: Holt, Rinehart and Winston, 1966. pp. 173-74.

Organizing the Elementary Schools of Tomorrow

We must first recognize, accept, and expand upon what is already a fact: A variety of persons are performing a variety of more or less specialized functions in the modern elementary school. Many of these will be persons who are not teachers in the usual sense; that is, they do not have the usual teacher training, but they associate in many ways with children. Once we accept this, we must then relinquish our long-cherished ideal of one teacher for every 25 children. By this I mean our long-cherished ideal of a teacher being a teacher.

In teaching per se, we must have the teacher with a structured cognitive style; the teacher with an unstructured cognitive style; the teacher who can tell stories in a wonderful way; the teacher who works best with individual children; the teacher who is excellent in seminars; the teacher who can mother children; the teacher who can, and does, work in a "no nonsense" fashion; the teacher who can prepare and present excellent math lessons; the teacher who has creativity but little follow-through (bubbling with ideas, but having difficulty implementing them); the teacher who can organize and cajole and push and get things done. To argue for maintaining a 25:1 ratio of elementary trained teachers while adding all this special personnel is to argue for at least a doubling of our per-pupil expenditures, and that is not going to happen very soon.

To those whose ire is aroused at the attacking of what is virtually a sacred cow in education, I can only say I am forced to agree with Charles E. Silberman who has stated flatly that far too many schools are organized more to facilitate administration than to facilitate learning:

> Part of the problem, moreover, is that most of the studies of the teaching process that have been conducted until fairly recently have ignored what goes on in the classroom, excluding as "extraneous" such factors as the way the classroom or the school is organized. Yet it is overwhelmingly clear that one of the principal reasons children do not learn is that the schools are organized to facilitate administration rather than learning--to make it easier for teachers and principals to maintain order rather than to make it easier for children to learn.[6]

These are harsh words indeed. Yet, the evidence is clear that quality education is not guaranteed by maintaining one teacher of highly variable qualifications with each group of 25 children. In fact, the evidence is clear to the contrary: our traditionally cherished ratio of 25:1 has not been uniformly successful.

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[6] Silberman, Charles E. "Technology is Knocking at the Schoolhouse Door." Fortune 74: 124; August 1966.

It is insulting to the teaching profession to assume that a teacher is merely a person who is responsible for 25 students. Administratively this is effective because it is easy to calculate the number of teachers needed if you have 400 students. All you need to do is divide 400 by 25 and come up with 16 teachers. It is easy to assume that any and all of these teachers are replaceable and interchangeable--just as light bulbs are replaceable and interchangeable. But the actual facts are quite different. When Miss Brown moves on, or retires, there will never be another Miss Brown in that school.

In short, I see the elementary school in sore need of being analyzed on a systems basis; that is, what tasks are to be performed, and what competencies are needed to perform these tasks? At the center of each of the parts of the program, I see a master teacher who is also a master organizer. This person is the key person--the person who provides continuity and stability; the person who must be held on to via a high salary as the young teachers come and go. I see this teacher as having the time, the authority, the increased compensation, and the status to enable him to perform these tasks. I see this teacher appointed to the position because the administration believes he can do the job, and because the teacher wants to try to do the job--not because he is the "best" teacher.

Merit Rating

Possibly some school systems in the United States have merit systems that really work--but I have yet to see one. A few plans have worked for a while, but sooner or later they have been abandoned. Most merit plans fail because there is little evidence that any single attribute of a person is a necessary factor in teaching. For example, Getzels and Jackson make the following statement about the teacher's personality and characteristics:

> Despite the critical importance of the problem and a half-century of prodigious research effort, very little is known for certain about the nature and measurement of teacher personality, or about the relation between teacher personality and teaching effectiveness.[7]

Mitzel in the 1960 Encyclopedia of Educational Research says:

> We need much precise, painstaking research in teacher effectiveness oriented toward a variety of educational

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[7] Getzels, J. W., and Jackson, P. W. "The Teacher's Personality and Characteristics." Handbook of Research on Teaching. (A Project of the American Educational Research Association, NEA, Edited by N. L. Gage.) Chicago: Rand McNally and Company, 1963. p. 574.

goals in a variety of educational situations.[8]

With the present state of the "art" of teacher evaluation, we cannot differentiate among teachers on the basis for the assignment of additional responsibilities and additional pay. We can determine, however, and with relative ease, such facs as who is interested in what, who can organize and implement programs, who is eager to do so, who can work effectively with colleagues or with subordinates. While it is patently impossible and unwise for a principal to place one teacher in a building in a supervisory position over another when both have taught in that building for some years, it is wise--and it is possible--for the principal to place an inexperienced incoming teacher under the direction of an experienced and competent teacher. And the principal can pay the supervising teacher (the teacher in charge of the program for those grades or those groups) more money for such additional responsibilities. If such assignments are made on an annual basis, they can be taken away if the teacher does not work out, just as department chairmanships can be taken away.

In addition, in those school systems that are expanding and building new schools, we can establish a new and radically different type of school organization. Teachers who are employed can be employed with full cognizance of the fact that there are ranges of responsibility and authority. In other words, in an elementary school (K-6) of 600 pupils, I would not employ 24 teachers, each with 25 pupils and each operating as an autonomous unit. Normally, one would attempt to employ four first-grade teachers in the above situation. Let us suppose the salary schedule ranges from $6,000 to $9,000, depending on experience and qualifications; the budget ranges from $24,000 to $36,000. Let us also assume the budget for salaries for the four teachers is $30,000. My personal preference would be to scout far afield to secure one outstanding first-grade teacher for around $10,000 and place her "in charge" of the program for the 100 first-grade children. To aid her and to work under her direction, I would also want to secure two beginning teachers at $6,000 each. With the remaining $8,000, I would want one teacher-aide at $4,000, and two part-time teacher-clerks at $2,000 each. My teaching team would then be as follows:

1 head teacher......................	10,000
2 beginning teachers @ $6,000 each....	12,000
1 teacher aide (2 years college at least)	4,000
2 teacher-clerks @ $2,000 each......	4,000

The above arrangement provides me with six pairs of hands instead of four, and for the same money. In addition, I still have three certified teachers instead of the usual four. Even more desirable is the fact that I have some program control over the beginning teachers, as well as a legitimate opportunity to help them. In the traditional arrangement the two beginning teachers must go into their rooms and close the door and learn the hard way.

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[8] Mitzel, Harold E. "Teacher Effectiveness." Encyclopedia of Educational Research. Third edition. (Edited by C. W. Harris.) New York: Macmillan Co., 1960. p. 1485.

In a school already operating and having three first-grade teachers, let us suppose one teacher retires or moves. Rather than replace the retired teacher with another teacher for $8,000, I might propose to the two remaining teachers the idea of providing them with three clerks to perform tasks ranging from marking papers, preparing teaching materials, putting lessons on the board, cataloging filmstrips, filling out student records, and other such duties.

At the upper elementary level, I might wish to introduce a hierarchy of responsibilities and, in addition, introduce a number of special responsibilities in mathematics, science, physical education, and so on doing this with some form of flexible block scheduling. Let me emphasize here that I am not suggesting either track systems or departmentalized instruction. Schools can slip easily into the trap of such rigid approaches to school organization if they are not very careful about why they are doing what they are doing.

Let me also emphasize that no one arrangement is automatically best. The principal must keep in mind his purposes for organizing and be cognizant of the unique strengths of the personnel he has. The onus is on the principal to be creative in his approach to devising arrangements that will improve the instruction. Just as automatic acceptance of what has been done in the way of organization denotes lack of leadership, so change and innovation for their own sakes denote poor leadership. I cannot stress too strongly the need for the principal to endeavor to deploy his personnel in ways that will enable them to use their diverse interests, wide ranges in knowledge, variations in teaching effectiveness, and differences in organizational ability and energy.

Hence, one of the major responsibilities of the modern elementary principal should be to devise the most imaginative and effective ways of putting the personnel of his school together and to endeavor to employ as new people those who can fill "gaps" in the team structure, rather than to employ simply "new teachers." In doing this, he will need to differentiate among teachers in the responsibilities to be assigned, the authority to be exercised, and the remuneration to be received.

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DIFFERENTIATED STAFFING: TRENDS AND ISSUES

Dean Corrigan

Differentiated staffing is a concept of educational planning that seeks to make better use of educational personnel by developing the kind of environment that will make optimum use of their experience and abilities. It establishes a variety of categories of teaching personnel assigned in terms of training, competence, career goals, and the difficulty of tasks. Flexible career patterns are developed which make it possible to utilize many of the resource personnel available in a community who are now excluded by the single-entry, one-route arrangement in teacher education. An inclusive rather than an exclusive system based on the ability to perform specified teaching tasks, instead of viewing all teachers and teaching roles as interchangeable, is the ultimate aim of differentiated staffing.

In differentiated staffing programs teachers and other educational personnel assume different responsibilities based on carefully prepared definitions of the many educational functions. Therefore, the concept is dependent on the analysis of essential teaching tasks as related to learning objectives.

Differentiated staffing, when developed as "a career ladder" or teacher-training model, encourages educational personnel to proceed with their own professional training and development to prepare for increased responsibility and status with accompanying increases in compensation. Status and remuneration are based on the complexity of the functions the teacher performs, chooses to undertake, and for which he commits himself to develop professionally. The "merit pay" approach is subsumed in that teachers are paid differently for assuming different responsibilities, as compared to being paid differently because they were assumed to be performing similar tasks at different levels of quality. Such an organization facilitates career advancement patterns designed to keep talented teachers in teaching as an alternative to moving into administration or accepting positions outside of education. Emerging new approaches to differentiated staffing also focus on new ways of involving all participants in the educational enterprise as professional decision-makers.

Some Examples of Differentiated Staffing Models

Models of differentiated staffing vary, and it will probably never be valid to promote only one scheme of organization. The literature now includes a variety of differentiated staffing approaches. A dozen models, some merely indications of ideas to be developed, and others, full blown plans already implemented, are shown in Figure 1. The models are further divided into one of three types, depending on whether they merely refine the present notions of staffing and related relationships, whether they reform or alter to some extent staff relationships, or whether they radically depart from tradition and therefore would be classified as "revolutionary" in nature.[1]

FIGURE 1

Model Refinement Paradigms	Organizational Emphasis	Teaching Emphasis	Learning Emphasis	Curricular Emphasis
1. San Diego Model[2]	PR	PR	SC	SC
2. Fountain Valley Model[3]	PR	SC	SC	PR
Reform Paradigms				
3. Saxe's "Team of Specialist's Plan"[4]	PR	PR	SC	SC
4. Niskayuna Models[5]	PR	PR	SC	SC
5. Sharpe's "Branching Tree" Paradigm[6]	PR	PR	SC	SC
6. McKenna's "Teacher Task Plan"[7]	PR	PR	PR	SC

[1] Fenwick W. English. "Differentiated Staffing: Refinement, Reform or Revolution," ISR Journal, Vol. 1 No. 4, Fall 1969 pp. 223-224

[2] Statement prepared for the State Committee on Public Education (SCOPE) by the Administrative Staff, San Diego Unified School District. Report to the California State Board of Education, Sacramento, June 1967. C-4-7.

[3] Edward W. Beaubier. "Experience with Differentiated Staffing." Today's Education, Vol. 58, No. 3, March 1969, pp. 56-57.

[4] Richard W. Saxe. "New Ways to Differentiated Assignments Within A School: The 'Team of Specialists' Idea." Remaking the World of the Career Teacher. NCTEPS, National Education Association, Washington, DC. 1966, pp. 177-183.

[5] Niskayuna Public Schools. "Model of Proposed Differentiated Staffing Pattern." Schenectady, New York, (mimeographed).

[6] Donald K. Sharpes. "Differentiated Teaching Personnel: A Model for the Secondary School." Unpublished doctoral dissertation, Arizona State University, June 1969.

[7] Bernard H. McKenna. "School Staffing Patterns and Pupil Interpersonal Behavior: Implication for Teacher Education." California Teachers Association, Burlingame, California, 1967.

FIGURE 1 (Continued)

Reform Paradigms	Organizational Emphasis	Teaching Emphasis	Learning Emphasis	Curricular Emphasis
7. Kansas City Model[8]	SC	PR	SC	SC
8. Temple City[9]	PR	PR	SC	PR
9. Utah State Plan [10]	PR	SC	SC	SC
Revolutionary Paradigms				
10. Allen's "Learning Pavilion" Plan[11]	SC	PR	SC	PR
11. Fantini/Weinstein "Three-tiered school" modified McKenna Model[12]	SC	PR	PR	PR
12. English's "Learning Stage" Model[13]	PR	SC	PR	SC

PR = Primary Emphasis   SC = Secondary Emphasis

The following descriptions of some aspects of the Niskayuna, Temple

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[8] Donald Hair and Eugene Wolkey. "A Plan for Differentiated Staffing Public Schools, Kansas City, Missouri: A Cast Study." Kansas City Schools, 1968, (mimeographed)

[9] M. John Rand and Fenwick English. "Towards a Differentiated Teaching Staff," Phi Delta Kappan, Vol. XLIX, No. 5, January, 1968, pp. 264-268.

[10] State Department of Education Utay. "Proposed Utah State Plan for Differentiated Staffing: A Proposed Framework for Developing a New Instructional System."(mimeographed)

[11] Dwight W. Allen, "The Learning Pavilion Model of Staff Differentiation." Working paper, University of Massachusetts, Amherst, Mass.

[12] Mario Fantini and Gerald Weinstein. Making Urban Schools Work. Holt, Rinehart, and Winston, New York, 1968.

[13] Fenwick W. English, "A Radical Model of Staff Differentiation." Unpublished paper, Temple City Unified School District, Temple City, California, May, 1969. (mimeographed)

City, and Beaverton programs emphasize certain characteristics of plans now in operation in schools on a small scale.

The Niskayuna Public School System in New York has adopted a differentiated staffing pattern, which evolved as a result of a three-year experiment in independent study techniques.[14] The Niskayuna model including the support teams of personnel is shown in Figures 2 and 3.

An assumption on which the Niskayuna model is built is that if materials are available and properly prescribed, a student may accomplish a major portion of his learning independent of the teacher. It also represents a model for training teachers since it is designed to include student teachers on each teaching team. Pre-service teacher education personnel are matched to a team on the basis of an area of specialty that they can add to the team. Continuous planning and discussion sessions held by the team provide an avenue for both pre-service and in-service education based on problems that grow right out of the real world of the teacher.

The program in the Temple City School District in California has as its core a four-level teacher hierarchy and an auxiliary personnel support system which includes an associate teacher, or beginning teacher, a staff teacher, or experienced teacher with full-time teaching duties, and a senior teacher with part teaching and curriculum development responsibilities, and a master teacher with some teaching duties, but with particular team leadership, and research and development responsibilities.[15]

Illustrated in Figure 4 is the model by which Temple City capitalizes on functions already existing in many schools, but formalizes them into the four-level teacher hierarchy: 1) The Associate Teacher, a novice, has a "learning schedule" and less demanding responsibilities; 2) The Staff Teacher has a full teaching load, aided by clerks, technicians and paraprofessionals; 3) The Senior Teacher, a "learning engineer" or methodological expert in a subject, discipline, or skill area, teaches three-fourths of the time; and 4) The Master Teacher is a scholar-research specialist who teaches two-fifths of the time, but also has curriculum expertise, translating research theory to classroom possibilities. Note the application of tenure and non-tenure to the structure. With this staff, flexible scheduling permits all types of

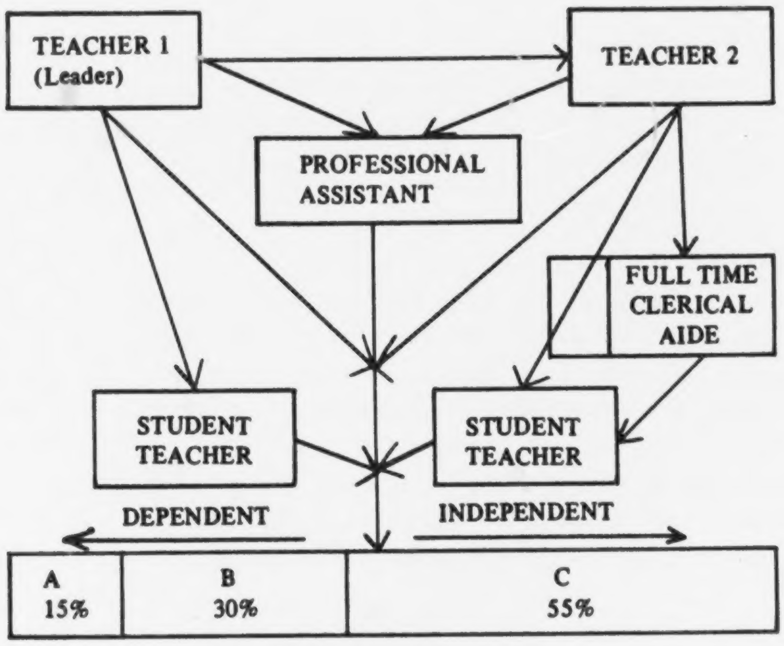
[14] Joseph H. Oakey, "A Model of the Proposed Differentiated Staffing Pattern for Niskayuna Public Schools." Thought Into Action, College of Education, University of Vermont, Vol. I, No. I, February 1969. pp. 5-6.

[15] Rodney Smith, "A Teacher is a Teacher is a Teacher?" Florida Schools, State Education Department, Tallahasee, Florida, September-October, 1968, pp. 2-6.

FIGURE 2

NISKAYUNA PUBLIC SCHOOLS

MODEL FOR
DIFFERENTIAL STAFFING PATTERN


TEACHER 1 (Leader)
TEACHER 2
PROFESSIONAL ASSISTANT
FULL TIME CLERICAL AIDE
STUDENT TEACHER
STUDENT TEACHER
DEPENDENT
INDEPENDENT
A 15%
B 30%
C 55%

SELF TEACHING CONTINUUM
65-85 STUDENTS

FIGURE 3

SUPPORT TEAMS
for
DIFFERENTIAL STAFFING

I The first support team is an in-school team and, with some variations, is fairly common in most elementary schools:

Art
Music
Library
Health
Resource Teachers
Physical Education
Etc.

II The second support team is for referral, mostly at the district level. It usually serves more than one school and, with some variations, is also fairly common.

Psychology
Social Work
Reading
Speech
Referral Agencies

III The technical support team designed for the differential staffing program is not now commonly found, and represents a higher order of differentiation. Some may be in-school and some at the district level as indicated in the accompanying text.

Curriculum Materials Researcher
Information Specialist
Instructional Systems Designer
Instructional Systems Production

FIGURE 4

TENURE	TENURE	NON-TENURE	NON-TENURE
			Master Teacher Doctorate or Equivalent
		Senior Teacher M.S. or Equivalent	
	Staff Teacher B.A. Degree and Calif. Credential		
Associate Teacher A.B. or Intern			
100% Teaching	100 % Teaching Responsibilities	3/5 Staff Teaching Responsibilities	2/5 Staff Teaching Responsibilities
1-10 Months	10 Months	10-11 Months	12 Months
ACADEMIC ASSISTANTS A.A. DEGREE OR EQUIVALENT			
EDUCATIONAL TECHNICIANS			
CLERKS			

group sizes and a great variety of teacher time, commensurate with diagnosed pupil needs. In addition, there is time for teachers to work together on professional and instructional tasks.

The Beaverton School District in Oregon is also engaged in a planning project aimed at relating teacher competencies to improved learning outcomes.[16] Beaverton plans to achieve better utilization of staff by (1) defining the teaching skills required for individualized instruction, (2) designing and testing a differentiated staff model based upon the defined skills, and (3) developing training programs to prepare personnel for differentiated staff assignments. Beaverton's in-service program includes training teachers in procedures for directing independent study, diagnostic and remedial techniques, counseling theory and techniques, clinical supervision, and preparation and use of media.

Current Trends

Most schools do not have differentiated staffing programs operationalized and most colleges are not preparing teachers for differentiated roles. However, new approaches to differentiated staffing are developing and they are receiving support from many sources including professional associations,[17] state education departments,[18] [19] colleges and universities,[20] the U. S. Office of Education,[21] and the public sector.[22]

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[16] Boyd Applegarth, "Differentiated Staffing in Beaverton," Beaverton Oregon School System, 1969. (mimeographed)

[17] See resolution promoted by the State NCTEPS, Chairman, and passed by the 1969 Delegate Assembly of the NEA, No. 69-4. Concept of Differentiated Staffing" issued by the National Commission of Teacher Education and Professional Standards, NEA, 1201 Sixteenth St. N. W. Washington, D. C., May 11, 1969.

[18] William H. Drummond. "State of Washington: The New Plan in Teacher Education", CEMREL Conference on Supply and Demand for Educational Personnel. Technical Report Series No. 7. Edited by James Winter, Central Midwest Regional Laboratory Inc., St. Ann, Missouri, July, 1969.

[19] Marshall Frinks. "A State Plan for Developing Exemplary Pilot Programs to Serve Differentiated Staff Roles", State Department of Education, Tallahasee, Florida 1969.

[20] Gordon J. Klopf and Garda Bowman, Training for New Careers and Roles in the American School, Bank Street College of Education, 216 West St., New York, N. Y. 10011 1969.

[21] Bureau of Educational Personnel Development. Education Professions Development Act Program Source Book, 1970-71, U. S. Office of Education, Washington, D. C., February, 1970.

One of the most comprehensive programs for disseminating ideas on differentiated staffing is a program known as Staff Development Schools, developed by the National Commission on Teacher Education and Professional Standards (NCTEPS). The Commission is enlisting the assistance of local associations in working with school districts to encourage experimentation with the differentiated staff idea.[23] In conjunction with this program, Student NEA chapters will be volunteering their participation in the Staff Development Schools as teacher aides and in student teaching assignments on teaching teams. There are now 85 Staff Development Schools; NCTEPS hopes eventually to have 200. NCTEP's job will be to foster communication among Staff Development Schools, provide materials and consultant help, and report developments to educators across the country.

As the differentiated staff concept has evolved, it has become clear that it can serve both as an organizing pattern for school staffing and as a training model for teacher education.[24] Most models of differentiated staffing include teacher aides, student teachers, interns, assistant teachers, and various other levels of teachers. All of these staff roles can be assumed by prospective, beginning, or regular teachers as they proceed up the training ladder. Most models provide for the cooperative development of programs by schools and colleges.[25]

Programs which demonstrate revisions necessary in teacher education as well as a new design for education in the schools are now in operation in selected places throughout the country.[26] Several states

[22] Research and Policy Committee of the Council for Economic Development. Innovation in Education: New Directions for the American School. Council for Economic Development, 477 Madison Avenue, New York, New York 10022. July 1968.

[23] National Commission of Teacher Education and Professional Standards. The Teacher and His Staff: Selected Demonstration Centers. St. Paul, Minnesota, 3M Education Press, 1967.

[24] Dean Corrigan, What Teacher Education Could and Should Be Doing in the Next Twenty Years. ERIC Clearinghouse, 1201 Sixteenth St., Washington, D. C., Acc. No. SPOO2-313 pp. 52-61.

[25] Evelyn J. Blewett (ed). "Summaries of the Nine Elementary Teacher Training Models," Journal of Research and Development in Education. University of Georgia, Athens, Spring issue, 1969.

[26] Bureau of Educational Personnel Development. Creative Developments in the Training of Educational Personnel. United States Department of Health, Education and Welfare. U. S. Office of Education, Washington, D. C. pp. 38-39.

including Washington[27], Massachusetts, Maryland, Pennsylvania, California, Vermont[28], New York[29], and Florida[30] are working on certification regulations which will support the differentiated staff idea.

Perhaps the most dramatic statewide action relating to differentiated staffing has taken place in Florida where the legislature has passed a law mandating the study and development of a comprehensive program of "Flexible Staff Organization."[31] The Florida State Department of Instruction, in cooperation with school districts, colleges and universities, and the professional association are developing model projects to implement and evaluate a statewide differentiated staffing plan.

Issues and Criticisms

The differentiated staffing concept challenges much that exists in present staffing patterns. In fact, if implemented, differentiated staffing could stimulate the remaking of the education profession, since it raises issues about all phases of teaching. Some of the most pressing issues are as follows:

Definition of Specific Teaching Functions and Competencies

As previously mentioned, differentiated staffing depends on the analysis of teaching tasks as related to intended educational objectives. As Don Davies pointed out in a recent article, this is the great challenge facing the education profession if it is to respond to the new demands for accountability. Teachers must begin to take responsibility for the progress or lack of progress achieved by their students.[32] It is therefore necessary to have techniques for assessing the degree to which every task is being carried out and the extent to which the educational objectives are being met.

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[27] Wendell C. Allen and William H. Drummond. Statement of Standards for Preparation of School Professional Personnel Leading to Certification (Fourth Draft) State Education Department, Tacoma, Washington, January 1969.

[28] Robert Vail, "Report of the Committee of 31, " State Education Department, Burlington, Vermont. October 1968.

[29] Alvin P. Lierheimer. "Anchor to Windward," NCTEPS, Write-in Papers on Flexible Staffing Patterns, No. 2, National Commission on Teacher Education and Professional Standards, NEA, Washington, D. C.

[30] Joseph Crenshaw, "Differentiated Staffing," Giving Teaching A Chance to Improve Learning. State Education Department, Tallahasee, Florida. January 1969.

[31] Senate Bill No. 70-X (68). Chapter 68-13. An act relating to education; amending Section 230. 23 (4) Florida Statutes.

[32] Don Davies, "Come Out From Under the Ivy." American Education. U. S. Office of Education, Washington, D. C. March 1970, pp. 29-31.

Descriptive studies of teaching which have examined what teachers do, provide a base point from which a further understanding of differentiated roles and responsibilities can develop. Withall[33], Flanders[34] Smith[35], and Amidon and Hunter[36] have analyzed the logical aspects of classroom discourse. Medley[37] and Mitzel[38] have made extensive measurements of teacher and student teacher classroom behavior. Hughes has developed instruments for assessing the quality of teaching in the elementary schools.[39] Bellack[40] has made a detailed analysis of the linguistic behavior of teachers and students in the classroom. New conceptional tools for examination of the non-verbal and "affective" aspects of teacher behavior have been developed by Galloway.[41] But

[33] John Withall. "The Development of a Technique for the Measurement of Socio-Emotional Climate in Classrooms." Journal of Experimental Education 17:347-61; March 1949.

[34] Ned Flanders. Teacher Influence, Pupil Attitudes, and Achievement. U.S. Office of Education Cooperative Research Project No. 397. Minneapolis: University of Minnesota, 1960.

[35] Othanel Smith and others. A Tentative Report on the Strategies of Teaching. U. S. Office of Education Cooperative Research Project No. 1640. Urbana: Bureau of Educational Research, University of Illinois, 1966.

[36] Edmund Amidon and Elizabeth Hunter. Improving Teaching. New York: Holt, Rinehart and Winston, 1966.

[37] Donald Medley and others. "Coding Teachers' Verbal Behavior in the Classroom: A Manual for Users of OScAR 4V."(mimeographed).

[38] Harold Mitzel and others. Improvement of Student Teaching, Phase I, U. S. Office of Education Cooperative Research Project No. 730035. New York: Hunter College of the City University of New York, 1962.

[39] Marie Hughes, Development of the Means for the Assessment of the Quality of Teaching in Elementary Schools. Salt Lake City: University of Utah Press, 1959.

[40] Arno A. Bellack, and others. The Language of the Classroom. Parts I and II, U. S. Office of Education Cooperative Research Project No. 2023. New York: Institute of Psychological Research, Teachers College, Columbia University, 1963 and 1965.

[41] Charles M. Galloway. Teaching Is Communicating: Non-Verbal Language in the Classroom. Bulletin No. 29, National Association for Student Teaching, NEA, Washington, D. C. 1970.

more important than the appraisal devices themselves, the appearance of behavioral assessment techniques in a video-taped and computerized world makes imperative some agreement on teaching goals and learner objectives. What good is a measure of teaching performance without objectively stated criteria which reflect the desired goals of that performance?

Since this question represents the crux of the issue involved with accountability and role differentiation, Woodruff's description and analysis of competencies seems worthy of special mention here.[42] His analysis is one of the most comprehensive to date for defining essential teaching behaviors as related to learning objectives. Woodruff claims that what we have learned of human behavior and instructional process is so devastating to the traditional concept of viewing teaching as the dispensing of information, that we must now abandon that unproductive concept and change to one that meets the known requirements for producing modification in human behavior. According to Woodruff, the teacher is a major source of influence on the behavior of students in school. The teacher's role must shift "from the traditional, verbalistic dispensing role to a backstage role consisting of planning, stage setting, diagnosing, prescribing, and trouble shooting." The teacher should stop trying to teach, and rather, should start producing the conditions in which students can learn.

The shift in the teacher's role and the competencies demanded for the new role, places a greater importance on the teacher's understanding of the nature of learning and the conditions that create behavioral changes among individual children.

Woodruff has analyzed and described what he feels are the critical and high priority competencies for teachers. These involve the necessary skills for teachers who will create the classroom conditions that make behavioral modification, or real learning, possible. The competencies of highest priority are:

1. Training teachers to aim all instruction directly at the production of an actual behavior. Steps in this process involve: (a) stating clear objectives, (b) developing diagnostic pre-instructional tests, (c) proper identification of required content and procedures, (d) developing final achievement tests, and (e) concern for high transfer value for out-of-school life.

2. Training teachers to provide the real environmental conditions for intended behaviors.

3. Training teachers to activate in students the full shaping cycle of

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[42] Aeshel D. Woodruff, "A Task Analysis of the Seven Major Component Tasks in Teaching," University of Utah. May 25, 1967. (mimeographed)

behavior. This refers to the learning cycle consisting of perception, thinking and concept formation, decision making, overt adjustment response, and interpretation of feedback from the consequences of the response.

4. Training teachers to increase the use of educative indirect influences and decrease the use of noneducative direct influences. Influences that elicit student perception, recall, review, conclusions, and predictions, are indirect and highly educative. Influences that prescribe or regulate, disapprove, or criticize unconstructively, threaten, command, or use agressive force, are control devices that have no educational value. In accordance with his theory of learning and attitude toward the role of the teacher, Woodruff identifies the "seven jamor component tasks in teaching." Teachers demonstrating the tasks described by Woodruff would:

1. state an objective and the component elements of learning required for reaching it.

2. set the stage for learning before the learners arrive.

3. assess the readiness of each learner and his appropriate starting place for an instructional unit.

4. effect a commitment by the learner to the learning task.

5. guide the learner's attention to these aspects of his learning environment that will enable him to achieve maximum comprehension and competence in coping with his environment.

6. activate the verbal learning that is required by the behavioral and conceptual objectives.

7. assess the status and achievement of each learner.

Only after a value commitment is made to the kind of learning objectives sought can the essential tasks of teaching be defined. This is why we may be on the verge of a new era in education. Rather than just tinkering with the content or organization, we are going to have to spell out value premises which are rooted in learning objectives.

Shortsightedness Regarding Educational Needs for the 70's

Another criticism of current developments in differentiated staffing is that many of the present efforts equate differentiated staffing with the use of aides.

The typical approach used now to design nonprofessional jobs and new careers is to take some duties from existing professional positions and use these as a core or base for designing new jobs. The difficulty with this approach is that very often it is not clear what these simpler duties are, whether the people who now perform them wish to relinquish them, or whether they are so integral with more difficult tasks that thay cannot easily be separated out.

Furthermore, existing teaching specialties in education do not meet the needs at which they are presently aimed. There is room for new careers, and the needs are even broader than the profession now assumes them to be. Right now, while reassessment of the education profession is being called for, is the time to expand the concept of new careers in education.

In general, most programs which have attempted to develop new careers have shown great weakness and limitation in the design of both nonprofessional and professional positions in relation to career advancement opportunities. Part of the reason for this is that the education profession, which has the responsibility for the design and description of new carrers, has confined the definitions of positions to the present conceptions of schools and colleges. Presently proposed performance standards and training curricula - the essential elements in the design of sound new careers, are too often rooted in staff utilization concepts based on a shortage of teachers rather than improved learning opportunities for children and youth through the introduction of new learning and teaching specialists.

The short-term impact of such an approach is even more evident when viewed in relation to data in the recent U. S. Commissioner of Education's report, *The People Who Serve*, which indicates that by 1975 there will be no quantitative teacher shortage based on present teacher-pupil ratios, but there will be a qualitative shortage of educational personnel.[43] Heckinger's column in the *New York Times* of September 14, 1969, reporting both why the long teacher shortage is finally ending and what the implications of this fact are, also makes interesting reading in this context.[44] And the testimony of Geoffrey Moore, Commissioner of Labor Statistics, before the House Subcommittee on Education corroborates the statement that "if present trends continue, a large surplus of elementary and secondary school teachers will be produced during the 1970's."[45] There is a great need for a systematic and effective approach to designing positions and advancement paths which help to create "new" schools and colleges, based on the need to provide each learner access to the opportunity to develop to the peak of his potential instead of solidifying "old" approaches based on the "winnters and losers" concept of education which should have been discarded long ago.

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[43] U. S. Office of Education, *The People Who Serve*. A report of the State of the Education Profession. Washington, D. C. 1969.

[44] Fred Hechinger. "Why the Long Teacher Shortage is At An End," *New York Times* September, 1969.

[45] American Council on Education Newsletter. "Higher Education and National Affairs," American Council on Education, One Dupont Circle, Washington, D. C. December 19, 1969. p. 4.

Instead of creating low-level jobs from simple tasks now performed by teachers in schools as they exist, now a long term development strategy is needed.

Under such a strategy, a first step would be to determine what needs to be done to achieve particular learning objectives. This would be followed by an examination of the technologies and various alternatives available to assist in accomplishing the intended objectives. It would then be possible to move directly into alternative technical considerations: (1) what personnel need to do to achieve the objectives: (2) the optional ways in which a variety of personnel working in teams can perform the task (3) the functional performance of the personnel in relation to the technologies to be used (4) the functional performances as organized into positions (5) the positions in relationship to each other.

Conclusions

If the schools are reformed to make learning more individualized and personalized a variety of new personnel with diverse talents will be required. "Teaching teams" will be made up of specially trained professionals who will not only work with children and youth, but, they will work with other teachers, too.

To the usual specialization areas of subject matter and age level will be added a variety of specializations which will focus less on the teacher as a content specialist and more on the teacher as a specialist in the nature of learning and the use of learning resources. Teaching staffs in the schools of tomorrow will include research associates, learning diagnosticians, visual literacy specialists, computer-assisted instruction specialists, systems analysis and evaluation experts, specialists in simulation and gaming techniques, information systems and data base designers, community resource and liaison specialists, and learning process facilitators.

New conceptions of the school of the future in which the community is viewed as a laboratory for bringing social relevance to the curriculum will also open the way to new thinking about educational roles. Differentiated staffing teams will include a wide variety of adjunct faculty from the community who will be able to share their talents with both teachers and students.

Dramatic changes in teacher education institutions will be required to meet the demands of these new differentiated staffing arrangements. If beginning teachers, career teachers, and a variety of auxiliary personnel are to learn a variety of specialized roles, they will need the flexibility to move through different experiences that cannot be provided by one mold. Teacher education institutions will be required to develop flexible instructional organizations that allow for personnel to move in and out of systemically designed teaching specialist programs.

The emphasis will have to be on teamwork, as well as specialization if the concept is to work. The last thing that is needed is the creation of more "tribes" within the profession. It should be kept in mind that differentiated approaches in training will have to be planned to prepare personnel for teaching specialties and teamwork within and among each of the groups in the career ladder.

The job of specifying levels of responsibility and the comparable value of specific roles offers a real challenge. If the profession is creative enough, it will not be necessary to get "hung up" on the "hierarchy" syndrome. Differentiation of roles can be both vertical in levels of difficulty and horizontal in categories of specialty.

It is now absolutely essential that new considerations be added to existing professional concerns. If the education profession changes by making distinctions among practitioners in terms of training, experiences, competence, and responsibility, and if the range of salaries for teachers becomes greater, permitting and encouraging many able people to stay in some form of teaching, then teaching will become a profession of a different character. It will have more stability and stature. And it should be in a better position to serve society and itself.

As the general public, and teachers themselves, realize teaching roles are not all the same and that each functional role requires different professional knowledge and skill, a clearer image of the teacher as a professional will emerge. It will be a complex task to assign priorities and values to teaching functions and levels of competence in relationship to the kind of learning objectives that are relevant to life in the 70's, but it must be done. In fact it will be mandatory in the future, not only because taxpayers will demand it, but because it is a requirement of any profession to clarify its functions and the levels of competence that must be demonstrated to be worthy of membership in that profession.

Source: California Teacher's Association Journal, March, 1969, pp. 29-33. Reprinted with permission from the California Teacher's Association.

A CASE FOR DIFFERENTIATED STAFFING

Can a four-level organizational hierarchy of teachers change the pattern of decision-making in education?

M. John Rand

Many of the ills of education today concern the changing status of the teacher in the educational organization. Increased teacher training and advanced expertise have vaulted teachers toward greater professional involvement in determining how organizational resources and time are distributed, and by what means. This has produced rapid demands for change, and new types of inter-and intra-organizational conflict. The teacher has become more militant and has expressed a desire to capture more professional autonomy and independence in licensing, control of teaching standards, entrance to the profession, direction over educational goals, and the concomitant methods-means selected to reach them.

Conflict erupts when teachers confront the present legal structure maintaining the old pyramidal administrative organization of education characterized by the decision-making power in the hands of the few. Teacher insistence upon new ways of formal involvement have produced demands for decentralized decision-making which has necessitated rethinking who is most competent to make instructional decisions, and how to affix the notion of responsibility.

The present organizational structure operates in a manner contrary to these new demands. One example is that the rewards of the organization run counter to the expressed sentiment of the profession, i. e., the teacher is the most important person in the formal education of the child. Organizational incentives reward movement away from children so that the career appeal of administration, or business and industry, has established a talent drain away from the classroom.

A spokesman for the United States Office of Fducation estimated that one million trained teachers were not in the classroom because they could earn more elsewhere. There is a nationwide shortage of approximately 172,000 teachers. Statistically, there shouldn't be a shortage of teachers since training institutions graduate at least 200,000 per year. According to some sources in California, there are 100,000 unused credentials on file in Sacramento, yet many California school systems recruit for teachers across the nation each year. The evidence indicates that teaching as a profession lacks career incentives. The NEA illustrates the problem by showing that of the candidates who enter teaching each year, 60 per cent will have left the ranks at the end of

TEMPLE CITY UNIFITED SCHOOL DISTRICT
A MODEL OF DIFFERENTIATED STAFFING

TENURE	TENURE	NON-TENURE	NON-TENURE
Associate Teacher A. B. or Intern	Staff Teacher B.A. Degree and Calif. Credential	Senior Teacher M. S. or Equivalent	Master Teacher Doctorate or Equivalent
100% Teaching	100% Teaching Responsibilities	3/5's Staff Teaching Responsibilities	2/5 Staff Teaching Responsibilities
$6,500-9,000	10 Months $7,500-11,000	10-11 Months $14,500-17,500	12 Months $15,646-25,000
Academic Assistants A.A. Degree or Equivalent $6,000-7,500			
Educational Technicians $4,000-7,500			
Clerks $5,000-7,500			

five years.

This sorry state has been corroborated by the Arthur D. Little Report entitled *Teacher Supply and Demand in California, 1965-75.* The report noted that the largest fraction of teachers leaving the profession each year "will consist of experienced teachers whose talents are such as to enable them to command higher salaries and more satisfactory working conditions in other employment." It further commented that there are "too few opportunities for promotion, too few opportunities for originality, dissatisfaction with paper work in teaching, dissatisfaction with personnel practices, dissatisfaction with the prestige of teaching, problems presented by the superintendent, and dissatisfaction with salary."

The overwhelming evidence of the *Little Report* indicated that teaching is not an attractive career since it possesses too few rewards and commands meager prestige and status. Neither the internal nor external rewards are sufficient to retain the large numbers of quality teachers needed to man classrooms at present or in the future. Those promising teachers who chose to remain in teaching must make a decision somewhere in their careers. Do they wait it out to get to the top of the salary schedule, or do they go into administration? Currently in education, there is no equivalent appeal in status, authority, or financial remuneration that compares with public school administration. For this reason, Ernest Melby once remarked, "We don't respect teaching. We respect administration."

Again the *Little Report* lent support to the statement by showing that in California the greatest number of master's degrees awarded at the secondary level was in the field of administration, and that the overwhelming career ambition of men at the elementary level was administration. The authors propose that what is needed as an alternative for teachers is the creation of a new promotional track within educational organizations for *teachers* by which they may advance to attain positions of influence, status, and financial remuneration equivalent to some administrators and beyond that of other administrators. This track should be characterized by promotion *as a teacher* based upon additional responsibilities, and involve a readjustment of the educational organization into collegial relationships between teachers and administrators and that teachers at all levels should be involved in the decisions relating to the instructional program.

The problem of merit pay usually is raised at this point. Merit pay attempts to delineate qualitative differences between teachers and remunerate them accordingly. It usually leaves untouched any change in instructional responsibilities, and does not alter the decision-making structure of the organization. The bugaboo of merit pay is that the ability to make valid discriminations is far beyond any substantive empirical or research base existent at the present time. Teachers have therefore been unwilling to accept the judgments of administrators in this regard, and administrators have objected to being made the "fall guys." For this reason the profession as a whole has rejected merit pay as a workable alternative.

A Variety of Tasks

Differentiated staffing offers one viable alternative not yet fully developed, but with much promise. The differentiation of pay by job responsibility is not new to other professions. For example, witness the operation of a dentist's office. There may be a dentist, a dental hygienist, a dental assistant, and a receptionist. Each performs a different job, each job demands a different level of training which can be related to salary. The dental hygienist is no less of a professional because the dentist makes more money. The differentiation is not made because one is "better" than the other, but because they perform different tasks within the same office. Differentiated staffing in a school could operate in much the same fashion.

For example, in the Temple City model one teacher may receive more remuneration because, in addition to functioning as a classroom teacher, he may be a specialist in curriculum development, learning strategies and tactics, or the application of research to improve practice. These differentiations already exist in some districts, however duties are not always performed by teachers. Another dimension by which school staffs may be differentiated is the length of the contractual period. Some teachers may be employed for 10, 11, and 12 months in various capacities. These delineations also exist in many districts in California. By combining these practices and adding several other key variables such as flexible scheduling, team teaching, and use of auxiliary personnel, it is possible to make differentiations in teacher roles and separate them into an organizational hierarchy. (see diagram).

The Temple City model capitalizes upon functions already existent in educational organizations and formalizes them into a four-level teacher hierarchy.

The role of the Associate Teacher is conceived as a novice to the profession. The teaching responsibilities of this person would be lighter and less demanding than those of the Staff Teacher. The Staff Teacher would carry a full teaching load with the exception of being relieved of most of the non-professional tasks such as yard duty, grading papers, hall supervision, etc. The Staff Teacher would be an experienced, probably tenured teacher, although it would be possible to earn tenure as an Associate Teacher. The Senior Teacher represents the first level above the Staff Teacher and would be the expert in a subject, discipline, or skill area. The Master Teacher would be a scholar/research specialist, someone with the technical expertise to apply relevant research to classroom practice. All teachers function as classroom teachers, though not for the entire school day. It is doubtful that any of the teachers in the hierarchy will be with children all day, since the school would operate on flexible scheduling. Flexible scheduling permits variations in group size, and amounts of teacher time commensurate with diagnosed pupil needs. It also permits teachers to work together during the school day on professional and instructional tasks. Under this plan, although the actual amount of time with children may be less than the present for some teaching personnel, the actual teacher contact with children during the school day or week will probably increase with flexibility in group size and instructional mode. This concept of teaching, known to anyone with children more than 50 per cent of the day, inadequately describes the teaching role.

The installation of alternate contractual periods and additional responsibilities will provide a career pattern for career teachers. It does not force all teachers to work a longer work year. It does not personalize the housewife teacher who only desires to work a ten month contractual period, nor does it penalize the teacher desiring to be employed for longer periods of time. The additional time on the job does not necessarily mean that this would be teaching, curriculum development or research. It could mean study at the university, travel, or related work experience.

Salvage of Part-time Aides

Good teaching will take place at all levels as many teachers may not wish to assume the additional responsibilities beyond the classroom. With the employment of flexible scheduling, it will also mean that many more credentialed women in the community who do not wish to work a full day, may be utilized in some part of the school program, such as in resource centers, open laboratories, libraries, or as teacher aides. At the present the educational organization does not use this surplus talent very well, if at all, because of the rigidity of the present school structure.

One of the false misconceptions of differentiated staffing is that it is strictly a salary plan. Administrators, for example, may see it as a device for weeding out poor teachers and rewarding other teachers with little relationship to changing the present school structure, its content, or changes in the administration of the school system. Without changes in the latter elements, differentiated staffing offers little for the betterment of education. What must be realized is that all roles in the educational structure are highly interrelated and interdependent.

Teacher roles cannot be changed substantially without concomitant changes in all other roles. Without real changes in the total structure, changes which cut across bureaucratic functions, thereby expanding some roles and eliminating others, the superimposing of new roles may simply refine what is already an archaic structure.

Thus, the Temple City model proposes to alter the decision-making powers and authority of school principals and other administrative officials at the central level through the creation of teacher/administrative decision-making groups with real authority. These groups will combine the technical expertise of teachers in the advanced positions of the hierarchy with that of the equivalent managerial branch of the organization.

Teachers are involved formally in the decision making process. It may also be expected that intra-organizational conflict will be increased in these contexts as a natural outcome of decentralizing and democratizing decision-making. What will also be a by-product is more relevant decisions, since they should reflect greater awareness of problems and the availability of solutions. The democratic process is always more tedious and demanding than simple exercise of unilateral authority.

Provisions have been made for teachers to make evaluative judgments about each other's performance. However, the advanced positions are viewed not as supervisory positions, but as service positions. Services are evaluated by those receiving them. Tenure in an advanced role is dependent upon successful evaluation of those services by one's peers. Teachers are viewed as sufficiently trained and mature adults who can make responsible judgments about the competency of their work. To abdicate this responsibility is to leave it to others. As long as teachers fail to assume their own self-regulation, a great deal, if not all, of professional autonomy, independence, and authority will be out of their hands. Other professional groups jealously guard this responsibility as one of the hallmarks of professionalism, and rightly so. The power to regulate is the power to control.

Recent movement by the CTA favoring greater involvement of professionals in licensing is a growing awareness of this fact. One of the major thrusts of differentiated staffing as conceived in Temple City is the recognition of provisions for teacher specialists to exercise judgments about the competency of other teacher specialists. As expected, alterations in the administrative structure had to accompany such a plan.

Various Applications Offered

The base for staff differentiation may vary. Some like McKenna have proposed using learning tasks as the base for teacher differentiation by pairing up learning behaviors with teaching behaviors and arranging them hierarchically. It is hard to oppose this proposition on philosophical grounds. However, it is far ahead of the state of the science at the present time. Another base of staff differentiation has been proposed by Hall as a means of race transcendence by "putting in close proximity to children a controllable, creative model of an effective integrated subsociety that begins through behavior and goals to exemplify the ideals of a democratic society." Other models are also beginning to appear. The adaptability of the present model in Temple City is that it capitalizes upon many of the practices currently in usage, and reorganizes the organization so that they may be more effectively utilized.

The present organizational structure of education is inimical to an effective utilization of time and talent, since it assumes that all children and all teachers are equal. As long as we continue to operate public education on this concept, equality of educational opportunity is a myth. Only when the organization can diagnose individual students and prescribe and allocate different kinds of resources, human and non-human, can the public school become a ladder of social mobility for all the children of all the people. Therefore, we must create an organization which is unequal, one which has the capacity to adjust itself to the needs of the child, rather than the other way around (which is typical of most systems today).

There are many obstacles one could throw in the path of new concepts which may facilitate organizational change. One is "legalism," the other "credentialism."

"Legalism" may be defined as the resistance to change by hiding in the sanctuary of the law. Laws are established around one conceptualization of the nature of the teacher's job. When this changes, the laws may no longer protect the public from the incompetent; they may block that profession from becoming more responsive to the needs of the society which it serves and which is making new demands upon that group for increased services. Fear of "legalism" has no doubt prevented much meaningful experimentation and innovation and may be partly responsible for the SCOPE report noting that "too much responsibility for educational policy has gravitated by default to the legislature."

No Fear of Losing Job

Allen has coined "credentialism" as a defensive posture taken by "static" professionals over releasing non-professional and non-judgmental tasks to paraprofessionals or aides. The growing professional is not afraid of being replaced, and therefore welcomes the opportunity to be relieved of non-judgmental functions which no longer require professional expertise.

One other major shift will be required in considering the ultimate future of organizational change along the lines of a differentiated teaching staff. The dominant attitude that teaching is an art must be replaced by the spirit of science. Art is a vague and mysterious term to describe a person's occupation. It means that certain assumptions are not open to question; practices which spring from these assumptions will thus remain unsubstantiated and possibly without a valid base.

Relevant Evaluation Needed

Science, on the other hand, demands proof and evidence for its operational assumptions. Knowledge can be stored and weighed against contemporary problems. The spirit of scientific investigation is self-renewing and must be constantly validated by field evidence. The science of teaching will upgrade professional practice and allow educators the means to shuck spurious practices still used which research negated long ago. This spirit will deal harshly with time as the regnant criterion of good practice. It will insist upon operational definitions, performance, and relevant evaluation. Teaching expertise may then be substantially raised and systematically collected on the basis of rigorous scientific evaluation. Without such an approach, we are doomed to repeat many of our past failures, only perhaps on a larger scale than before.

The SCOPE Report noted that California is entertaining a "produce or else" period in its educational history. It is clear more of the same cannot produce in these times of crisis. Perhaps for this reason differentiated staffing should be examined as a vehicle for greater productivity of the educational institutions which serve the public.

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DIFFERENTIATED STAFFING: GIVING TEACHING A CHANCE TO IMPROVE LEARNING

Fenwick English

A somewhat deceivingly simple concept may change the structure of American public education in the next quarter century. This concept is differentiated staffing, which means a division and extension of the role of the teacher through the creation of a teacher hierarchy with job responsibilities that are commensurate with a range of pay. This can make it possible for some teachers to earn $25,000 per year and command status and authority in the educational organization equivalent with some administrators and well beyond that of others. The concept also is a vehicle for the improvement of instruction, since it holds the key to more effective utilization of staff talent.

Many of the most cantankerous problems in education today concern the changing posture and image of the classroom teacher. Once a placid pedagogue, social misfit, or poor man's scholar, he typically had no more than a ninth grade education with a year of normal school at the turn of the century. Contrast this picture with the four or five year matriculated professional teacher today, many with advanced degrees in their special fields, and immediately one notes the great difference in training and competence. With this increased training, the teacher has become restless and dissatisfied with his position in the educational organization that still sees him as the ninth-grade educated school master with birch rod and a knapsack.

The teacher has changed, society has changed, knowledge has changed, and students have changed. The only thing that remains in steady state is the school, functioning on the same assumptions about the teacher, i.e., that he is a sub-professional who must be told what to do and when to do it. Furthermore, the school says rather plainly that all teachers are exactly equal because no matter how long they have taught, or how many years of advanced training they have earned, they still receive thirty students, in the same four walls, with the same instructional responsibilities, as they did when they first began their teaching careers.

All of these conditions have come rapidly to a head in the nation's urban areas which have spawned militant teacher unions and associations. Here the educational bureaucracy is at its worst: communication lines overextended or nonexistent, laced with petty administrative policies and procedures to keep teachers in line; decaying school buildings; and ghettoized neighborhood areas. It is in these appalling conditions that teachers have turned to the strike as the weapon that brings results. Through organized action they can swiftly bypass the endless channels of the administrative labyrinth, and work directly with the Board of Education or the legislature on educational problems and grievances.

Despite some progress there is every indication that the education profession is going to continue to face a myriad of teacher problems and teacher shortages for some time to come. The United States Office of Education estimates that one million trained teachers are not in the classroom because they can earn more elsewhere, and the NEA predicts that last year the nation was short 172,000 teachers. This despite the fact that universities and colleges graduate about 200,000 candidates with teaching credentials per year. The statistics indicate that teaching is not an attractive career, and that it cannot offer status, prestige, or financial remuneration to compete successfully for graduates at the university who are considering a variety of professional paths.

There are no promotions in teaching. All promotions lead away from the classroom. If a teacher accepts a promotion he becomes a counselor, coordinator, consultant, supervisor, vice-principal, principal, anything but promotion as a teacher. The hypocrisy of professional education is clearly evident here; we say teaching is the most important activity in the educational enterprise, but all the rewards, financial and otherwise, encourage movement away from the classroom. The administrator is the one who has the status, power and prestige in education. Administration is the mark of advancement, the badge of success, the executive trail in education. How many creative and dedicated teachers do we lose each year to business and industry, or to administration?

The hiatus between teachers and administrators is widening and the problems of shortage and discontent, and the threat of strike, loom as large as ever. The problem is accentuated by administrative negativism and retreat to the policies of the past, the authority of the past, and the leadership of the past. Administrators are failing to grasp the significance of the new teacher militancy and drive for new positions in the schools. They make the classic mistake of labeling such activity the work of the union and they wash their hands of all responsibility. They are unable to ascertain that it is an autocratic organization, run solely on authority, with the implied assumption that the teacher must remain subservient, that is the cause of so much friction and resentment. So many administrators are so afraid of actually involving teachers, so fearful of losing their own positions or some power, that they are gravitating towards isolationism and an actual abdication of leadership. By defending the old organization with its antiquated assumptions about the teacher, the administrator or supervisor indicates to teachers he will not accept the new teacher as a professional colleague or as a peer. This is the grist for the mill of heightened militancy and increased hostility.

Since education is so desperately in need of a drastic overhauling, the administrator, by refusing to consider new relationships with teachers, and clinging to the old organization, is actually reinforcing the status quo. The teacher is the change-agent. Once the public makes this distinction and sees the drive for teacher professionalization as the impetus for a thorough house-cleaning of the establishment, a new link of power will have been forged which will see the rise of new leadership, perhaps completely autonomous and independent from the present structure. One must lead or one inevitably follows, for in leadership there is little middle ground.

Much of what appears in store in the future can be avoided if administrators will recognize the demand by teachers for increased professional responsibilities as a positive step towards maturity and professionalism, rather than a threat. The function of the administrator is to promote the teacher, to create the conditions by which the teacher may respond creatively to the challenge of producing improved education, and to procure for the teacher the necessary material and financial support to innovate. Administration, correctly conceived, is a support system for the teacher specialist, not a system of authority which seeks to constrain and handicap the teacher in finding new solutions to improved instruction.

Differentiated staffing offers a promising solution by separating teacher roles and offering career advancement to teachers. This is a method of retaining career teachers in the classroom. Teachers may be advanced and paid salaries commensurate with school administrators and command equal, if not greater, prestige and influence in the educational organization. By opening up the decision-making machinery to active teacher participation, leadership is supported and augmented by the best combined professional expertise available in solving problems in the school or county. Through the development of colleague evaluation and interaction, the gap between the administrator and teacher is reduced. Both functions are still vital to the organization, but teaching can no longer be considered subservient to administration. Differentiated staffing brings into being a structural incentive system that rewards teaching, not at the expense of administration, but in addition to administration.

The Temple City Model of Differentiated Staffing is one of several in the United States being implemented this year. Most of the models utilize the same type of basic differentiation. First, classroom teaching is the base and the core responsibility of all positions in a teacher hierarchy. Teachers are separated vertically on the type of additional responsibilities they assume as teachers. For example, a classroom teacher who assumes responsibilities for the development of curriculum in a subject or skill area may be a Teaching Curriculum Specialist. A teacher who is a methodological specialist in a subject or skill area might be a Senior Teacher of Reading, or a Senior Teacher of History. A classroom teacher who specializes in the application of research to practice may be a Teaching Research Specialist. Horizontal differentiation is more difficult and raises the spector of merit pay which is frequently confused with differentiated staffing.

Under merit pay proposals, somebody or some group decides, on some criteria, that one teacher is better than another, and therefore one is paid more than the other. The traditional salary schedule does the same thing in a different way, only with different criteria. On the traditional salary schedule, a teacher is supposed to be better as a result of having more graduate semester hours or degrees, or more time served in the school system. The objection to both remunerative plans (merit pay or the traditional) is that they fail to differentiate the actual responsibilities between teachers in the school structure. Even if we were to assume that such discriminations were valid, the public school is negligent in that it makes no structural differences in the deployment of teacher talent. We are therefore forced to come to one of two judgments, i.e., (1) there is no actual relationship between teaching experience and being a better teacher, or that (2) while there is a relationship and teachers are better as the result of experience and advanced training, the present organization does not seek to capitalize upon this experience. Such organizations therefore may be classified as ineffective and inefficient in the utilization of their personnel. To agree that the public schools fail to utilize their resources during an age of nation-wide shortage of teachers, and a well-documented talent drain away from teaching because of a lack of career incentives, is to recognize a bad situation that is bound to get worse.

The present role of the teacher is an undifferentiated one, that is, all teachers are equal because they have the same instructional responsibilities with the same number of pupils. The movement by teachers towards professionalization will be to end this notion of undifferentiation. As long as teachers are viewed as all the same, the educational organization can continue to be governed by a handful of men in top administrative positions. People are more controllable and manipulatable when there are no differences among them. Also the organization, by not recognizing differences, does not have to be flexible or responsive to those differences. The issue over control is much easier in an organization characterized by mass conformity and uniformity than if one were dealing with radical differences in personnel. This is why differentiated staffing as a concept is ultimately the way teachers will break out of their roles as docile employees within the educational structure and force recognition of their differences, thereby placing stress on the old pyramidal power structure of education and de-centralizing the decision-making process with themselves as integral components. This will not only permit greater voice by teachers in the formulation of policy, but is also precisely what education needs to become more responsive to the needs of the student. The single, universal definition of a teacher as one who can be all things to all students is a barrier of the first magnitude in the individualization of instruction. The real point of contention will not be in getting teachers to accept differentiation, it will be in adjusting the teacher's expanding professionalization with the old decision-making structure which has been unresponsive both to the changing position of the teacher and to society to produce far-reaching reforms which are needed to save public education itself. The battle is with unencumbering the administrative structure to compensate and foster teacher differences in a new type of educational structure.

This is what differentiated staffing, as a concept, does in the creation of a teacher hierarchy which formalizes advanced teacher roles and places teachers in the position of attaining maximum influence and control over their own destinies. This hierarchy, as envisioned in Temple City, makes adjustments over the administrative structure so that teachers are intimately involved in the decisions which affect their competence with children. To illustrate how this shift has to occur, compare diagram #1 with diagram #2.

The pyramidal structure becomes inoperable with the installation of a teacher hierarchy on a school system wide basis. The whole decision-making process must be re-conceptualized. The initation of new teacher roles cuts across some functions. The ripple effect is obvious. Many administrators fail to grasp the fact that substantial teacher role differentiation cannot occur without a subsequent re-organization of the administrative structure. This is because, in reality, all roles are interrelated and interdependent. Some foolishly propose differentiated staffing as something that can happen outside the old pyramidal structure. This is another reason why other administrators see

DIAGRAM #1

THE TRADITIONAL POWER STRUCTURE IN EDUCATION

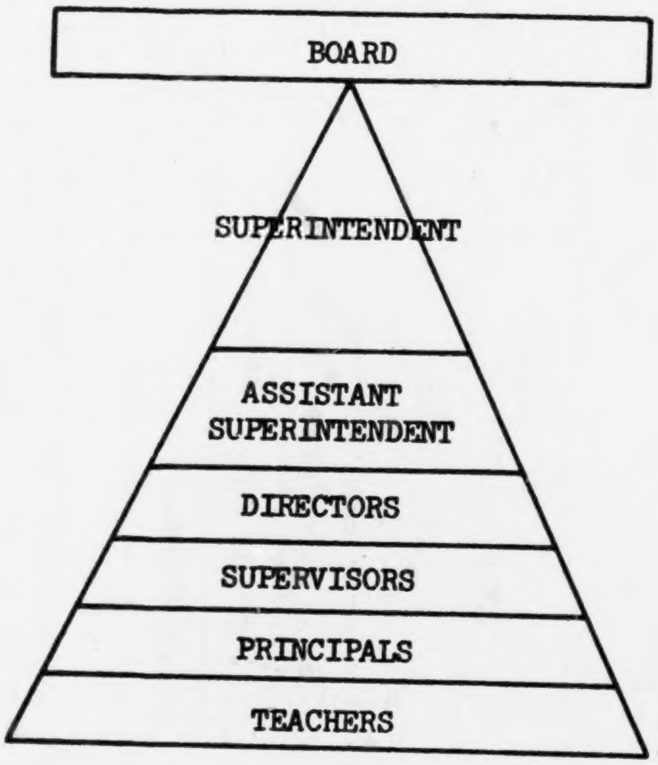
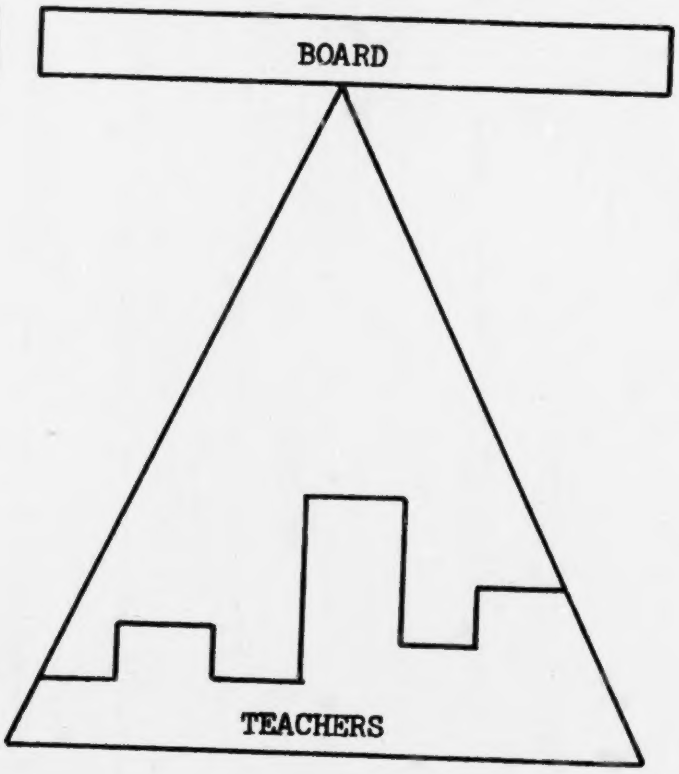

BOARD
SUPERINTENDENT
ASSISTANT SUPERINTENDENT
DIRECTORS
SUPERVISORS
PRINCIPALS
TEACHERS

DIAGRAM #2

THE EFFECT OF A TEACHER HIERARCHY ON THE TRADITIONAL STRUCTURE


BOARD
TEACHERS

differentiated staffing as the addition of department heads or other common roles. These typically do not change the old structure, but simply augment it. For this reason, teachers see them as non-teaching roles, functions of the managerial branch of the organization. The public must understand that the teacher problem can never be solved without offering real career incentives to career teachers and must be able to provide an organization that can (1) pay some teachers what top administrators earn, and (2) take organizational advantage of this talent in creating improved education by involving teachers in the decision-making process as formal partners.

DIAGRAM #3

TEMPLE CITY UNIFIED SCHOOL DISTRICT

A MODEL OF DIFFERENTIATED STAFFING

TENURE	TENURE	NON-TENURE	NON-TENURE
ASSOCIATE TEACHER (A.B. OR INTERN)	STAFF TEACHER (B.A. DEGREE AND CALIF. CREDENTIAL)	SENIOR TEACHER (M.S. OR EQUIVALENT)	MASTER TEACHER(DOCTORATE OR EQUIVALENT)
* 100% TEACHING	100% TEACHING RESPONSIBILITIES	3/5'S STAFF TEACHING RESPONSIBILITIES	2/5'S STAFF TEACHING RESPONSIBILITIES
$6,500 - 9,000	10 MONTHS $7,500 - 11,000	10-11 MONTHS $14,500 - 17,500	12 MONTHS $15,646 - 25,000
ACADEMIC ASSISTANTS A.A. DEGREE OR EQUIVALENT $6,000-7,500			
EDUCATIONAL TECHNICIANS $4,000-7,500			
CLERKS $5,000-7,500			

* Teaching responsibilities are denoted on a flexible schedule rather than a traditional schedule. This it will be possible for a teacher to instruct as many, if not more, students per week even though the actual time interval may be reduced.

An important role will be played by Boards of Education. Boards will have to realize that teachers cannot bring into being new and different educational programs in a differentiated teaching staff without greater flexibility from the administration and Board policies and procedures. Board policies must necessarily be of the general type and offer a wide range of possibilities in the experimentation stage. The demand by some Boards for strict control produces a rigid organizational climate which is not conducive to innovation or increased flexibility. The Board must tolerate a greater range of experimentation and be willing to invest in promising educational ideas knowing that some will, of necessity, fail. Administrators must learn to live with more role vulnerability and shed, honestly and candidly, the mantle of the instructional "expert" which so few possess as to appear "phony" to teachers and public alike. The administrator is a generalist, one who enhances and promotes the career of the specialist. Administrators will continue to be justly criticized as long as they try to tell the specialists (teachers) how to perform their jobs.

If teaching and learning are the heart of the school, a differentiated teaching staff must capture and hold the resources of the organization to this purpose. Diagram #3 is a model of the Temple City Differentiated Staffing Plan. A brief description of the roles are as follows:

ASSOCIATE TEACHER

The Associate Teacher is a beginner, the first year teacher. The teaching load of this person is lighter and less demanding than that of the Staff Teacher. The neophyte teacher is less sophisticated in methodology and in pupil diagnosis than his more experienced counterparts.

STAFF TEACHER

The Staff Teacher is an experienced teacher, probably with tenure. This is a highly experienced and seasoned teacher, one who can offer a wide range of instructional talent in his discipline. The Staff Teacher may be a specialist in several learning modes, but would, in most cases, be expert in only one, as for example small group instruction.

SENIOR TEACHER

The Senior Teacher is a learning engineer, a specialist in the diagnosis of learning problems and in the relation of new teaching strategies to the needs of the learners. This teacher has undergone intensive, advanced training in a subject or skill area and this, with many years of practical experience, can offer to other teachers a host of tested ideas for the improvement of teaching and learning.

MASTER TEACHER

The Master Teacher is first a good teacher, though not perhaps the outstanding teacher as in the case of the Senior Teacher. The Master Teacher is a scholar in a field, one who possesses the training and technical know-how to apply promising research-tested ideas to improve the school. This will require a sound grounding in research and a knowledge of how people adopt innovations. The Master Teacher and the Senior Teacher form the "self-renewal" unit in a subject or skill area. These two advanced personnel feed into the school a steady flow of relevant new practices and curriculum content to keep the school abreast of the times and thereby avoid much of the content and instructional obsolescence so common in schools today. This does not mean a stifling of teacher creativity since no one has a market on that commodity, rather a better, formal system of fostering teacher creativity and nurturing it more quickly than is possible today.

PARAPROFESSIONALS

A number of paraprofessional positions are envisioned in the plan. Teachers are called upon to perform a number of tasks often markedly clerical or secretarial in nature today. The performance of these functions is a waste of professional time and talent, fatiguing and inefficient. Teachers should not be fearful of employing paraprofessionals to remove these unnecessary classroom chores and administrivia. If a teacher could really be replaced with a paraprofessional, and there is no difference in competence or function as a result of training, then he ought to be replaced. The job of the teacher is to diagnose, prescribe, analyze, encourage, criticize. All those tasks require the unique judgment of one human being in working with another: this is the essence of the teacher's task.

Differentiated staffing is a challenge to the career teacher to shed the cloak of sub-professionalism for full professional status with all of the responsibilities and privileges which accompany such a change. It is a challenge to administrators to capture the desire of teachers for greater voice in the system of education and maximally deploy their talents more effectively. It is a challenge to Boards of Education to release their professional staffs to initiate substantially new programs with increased quality and instructional individualization and relevance to contemporary problems.

TEACHER PARTICIPATION IN DECISION-MAKING: THE ACADEMIC SENATE

One promising new concept initiated in Temple City is the School Academic Senate. This group is composed of Senior Teachers, by area, and the School Principal. It is in this body that school policies are discussed, evaluated and changed. The decisions regarding each school's operation represent the combined judgment of the Senior Teachers and administration. The group has real authority and members may disagree with the principal over issues confronting the school. In such cases, the principal can no longer exercise arbitrary and unilateral judgment over what is important. The Academic Senate has an appeal route to a central district body, composed of Master Teachers and other Principals, equal in number, chaired by the Superintendent. It is this group that hears appeals by teachers or administrators over disagreements about school policies. In case of umbrage here, the Board of Education becomes the final body to which decisions may be referred. This type of decision-making structure is certainly more complex and involved than the present single line/staff arrangement. It will mean, in all probability, that intra-organizational conflict will be increased. If communication is also increased, and decisions are resolved by logic, persuasion, and facts, the number and kinds of decisions emanating from the Senates should be more relevant and acceptable to all the professionals influenced by them. The democratic process always is more time-consuming and tedious than simple, authoritarian enforced solutions. But the quality of the solutions ought to be increased, there should be greater availability of solutions previously not known, and the solutions should reflect greater expertise since they represent the combined judgments of the most capable professionals.

All teachers will not be anxious to adopt differentiated staffing, nor, obviously, will all administrators. An undifferentiated organization offers to the security-prone principal or superintendent and teacher a safe, often untouchable position, without the threat or pressure of producing improved education. It is difficult to attach responsibility for failure to up-grade substantially the quality of public education in an undifferentiated organization. This fact cannot be hidden from the public at large for too much longer. If the total profession does not lead, it will follow. Recently, a group of private business-oriented research executives organized the Committee for Economic Development (CED) in New York for the purpose of applying cost-benefit and cost-effectiveness analyses to education.

The old excuse that teaching is too individualized an occupation to determine cost effectiveness and efficiency via standards is an unprofessional dodge to a legitimate public question. Professionals shall either accept the responsibility of defining effective practice, or it will be defined for them. The question is not whether the criteria are objective or subjective, it is rather a question of who is to perform the task? The teacher is the most important and competent individual to define what it is that comprises excellence in his practice, and who should enforce the standards of teaching. This is the essence of professionalism because it is the vehicle for control and hence independence and increased status, not to mention better quality instruction. Teachers have no business complaining about their lack of autonomy and authority as long as they abdicate to others this vital regulating function.

A 75-page CED statement notes that "..it is vitally important to recognize that the expenditure of increased funds will not by itself guarantee improved education. It has become increasingly apparent that additional funds are often employed to perpetuate and extend inefficient operational techniques and ineffective instructional methods." The CED report recommends that there be a "continued and more extensive experimentation in school organization including the combination of differentiated staffs." The public will not give more funds to the present educational organization without also demanding a rather extensive overhauling of its operational procedures. The challenge to every one of us is to make the necessary changes and accept the responsibilities which will guarantee continued public trust in our capabilities. If we believe that we are the most competent individuals to perform the task, we must demonstrate our willingness to undertake the responsibilities associated with it. The time is short.

The change in the status of the teacher from a passive position to an active one is the point where dramatic results can accrue almost overnight. An educational organization, capable of utilizing teacher talent, must be created where none exists at the present time. In the future we should be able to say that not only does increased training and experience make a better teacher, but that we are able to utilize this precious and scarce human resource in a different way in our school systems. At that time, we will have come much closer to maximum instructional effectiveness. The difference between where we are, and where we can go, can only be measured by our students. Failure to meet the challenge is to send them into the future without a future. We cannot afford to fail.

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DIFFERENTIATED STAFFING: IS IT WORTH THE RISK?

Roy A. Edelfelt

Since the advent of professional negoations, there has been a perceptible shift in the balance of power in education, bringing the local association into much greater prominence. The newfound influence of the local association has been wielded largely to improve the economic welfare of teachers. However, local associations have recently begun to give attention to negotiation for non-economic matters. These are less tangible than economic welfare but perhaps more far-reaching in their impact on American education. Among the professional concerns which might be considered in this new thrust in negotiations is differentiated staffing. The concept (as defined below) has only caught the interest of educators in the last year or two, but if has achieved a distinct notoriety in that brief time. The notoriety grows from conflicting perceptions of what the concept will produce in practice: it could be used to exploit teachers but it might also make dramatic improvements in the schools. If such diverse outcomes are possible, it is crucial that teachers become well acquainted with the concept of differentiated staffing.

What Is Differentiated Staffing?

Differentiated staffing is an outgrowth and refinement of team teaching and "the teacher and his staff" idea, both of which propose the use of auxiliary personnel in the schools to relieve teachers of their non-teaching tasks and recognize a diversity of teaching tasks. Differentiated staffing goes a step further to suggest that teaching be differentiated into various roles and responsibilities (more than a vertical hierarchy) to allow for the different interests, abilities, and ambitions of teachers. It calls for differentiating salary in terms of the responsibilities assumed and allows for both a training and a career ladder.

Why Differentiate Staffing?

Differentiated staffing could provide more manpower to diversify and individualize programs, offering alternative modes of participation in the instructional process. It could encourage varied utilization of manpower as an alternative to the uniform assignments now assumed by teachers. It could enhance teaching as a career by providing possibilities for growth in responsibility with commensurate rewards. It could provide a ladder in teacher education, eliminating the dichotomy between preservice and inservice.

Events of the last decade have demonstrated the inadequacy of schools as they are. Schools are having to reassess the needs and interests of learners in the context of an ever more unpredictable future. For the children of the 60's and beyond, learning in school is only a beginning. Today's children need preparation for a lifetime of learning and must nurture and develop the desire to learn and the skills to follow through on it. A daily fare of instruction in large groups, oriented to facts and subjects, is hardly conducive to the development of these wherewithals. Yet diversification and individualization of program clearly mean more manpower for the schools, at a time when the demand for qualified teachers already outstrips the supply. Thus education would appear to be on the classic horns of a dilemma.

On closer examination, however, the dilemma is not so distressing, The "shortage" of manpower in education may be a misnomer, the real problem may be the inefficient use of manpower. To explain, one major reason for the present manpower shortage is teacher drop-outs. Each year 30% of trained graduates fail to enter the profession and 8% of experienced professionals leave it. As a career, teaching lacks holding power. Why? As presently structured, schools offer only one basic instructional position and one basic salary schedule. Maximum responsibility for teachers is reached too soon, and the ceiling on salary is too low. Teachers who want and have the potential to assume greater responsibility must either seek promotion out of teaching or stay underemployed in teaching. Few schools are organized to use the full potential of faculty members under present staffing patterns.

Additionally, schools have no system for varied utilization of manpower. School staffing is an all-or-nothing proposition, with little range of choice. To teach, a person must have all the necessary skills and credentials and give himself full-time to the job. Education's reserves--certificated personnel who could work part-time, who could re-enter with some retraining--cannot be mustered to participate in instruction because there are so few alternatives to full-time teaching.

How Would Differentiated Staffing Operate?

Differentiated staffing would provide many alternatives in teaching roles and would also give the underemployed teacher opportunities for advancement in teaching. The "omnicapable teacher "--scholar, lecturer, tutorer, curriculum planner, lesson planner, technologist, psychologist, diagnostician, and counselor--would be replaced by an omnicapable team of specialists and assistants, each performing different tasks in a close working relationship and contributing to instruction at his level of training and according to his interests.

Precise patterns of differentiated roles and responsibilities are not yet well defined. However, the following tentative definition of differentiated staffing may be helpful:

> Differentiated staffing is a plan for recruitment, preparation, induction, and continuing education of staff personnel for the schools that would bring a much broader range of manpower to education than is now available. Such arrangements might facilitate individual professional development to prepare for increased expertise and responsibility as teachers, which would lead to increased satisfaction, status, and material reward.

This definition suggests that responsibilities could be graduated to correspond to distinct phases in the education and career aspirations of teachers and that personnel could be teamed across staffing levels. Thus, there might be a level of staffing to correspond to the recruitment phase. Persons at this level would be non-certificated and would perform as auxiliary personnel under the supervision of experienced professionals. Student teachers and interns--preprofessionals--might constitute another level of staffing, the preparation phase of teacher education. Such personnel would be considered and involved as staff members rather than as adjuncts. Teacher training would be integrated into the purposes of the school, to result in better preparation of teachers as well as improved instruction.

Beginning teachers, returning teachers, and some part-time teachers would comprise the staff in the induction phase of teacher education. Beginning teachers could be given a gradual induction into teaching instead of being thrust abruptly into full responsibility for the full range of teaching tasks. Returning teachers could work the kinks out gradually and have the assistance and counsel of experienced teachers in the retraining they need. A team arrangement would eliminate the present barrier to use of part-time teachers.

The continuing (inservice) phase of teacher education could be staffed by experienced teachers. At this level responsibilities could vary both in kind and degree, the latter allowing for advancement. For example, in addition to and related to a teacher's responsibility for specific aspects of the learning of a particular group of children, he might also be responsible for supervision of auxiliary personnel, training of preprofessionals, induction of beginning or returning professionals, or coordination of part-time professionals. He might be in charge of curriculum development or continuing education for all the members of a team. Alternatively, he might prefer to do none of these things and merely be one member of a teaching team. In this role, because of the differentiation of responsibilities, he would have more time to give individual attention to children.

Criticisms of Differentiated Staffing

Critics contend that differentiated staffing could result in the experienced and most able teacher reducing his contact hours with children and that it would therefore reduce the premium on teaching. Such a conclusion only follows if one defines teaching narrowly as time spent with children. If teaching is viewed to include such things as planning and organizing learning situations and conferring with colleagues, then reducing contact hours could ultimately enhance the quality of time spent with students. The objective, after all, is quality, not quantity.

Critics also assert that advocates of differentiated staffing will use it mainly to establish salary differentials among experienced teachers, resulting in merit pay. Merit pay means salary differentials based on the quality of performance in situations where every teacher has a similar task and the same degree of responsibility. Differentiated staffing, on the other hand, would establish salary differentials based on differences in degree of responsibility. If staffing is differentiated and there is prior agreement on various degrees of responsibilities, then a situation of merit pay will not obtain. Teacher organizations will need to be alert to ensure that new staffing patterns are fair and defensible, and teachers will need to be involved in the development of any plan for differentiated staffing, from the point of inception all the way through to evaluation and modification. Theirs are the tasks to be differentiated; hence they should participate in the judgement on how this can best be done.

What Can Teachers Do About Differentiated Staffing

Teacher involvement in the development of a plan for differentiated staffing might be initiated through the local association. A committee of local association members can collect and study information on differentiated staffing, visit school districts where experimentation is under way, assess the appropriateness of differentiated staffing to the problems confronted by local schools and teachers, and recommend what should be done about differentiated staffing in the local situation. If the prognosis is favorable, then the weight of the local association can be used to initiate the idea at the local school district level.

Differentiated staffing is not likely to result in lower operating costs for schools. It does, after all, require more, not less, personnel for instruction. In most cases, school districts will have to bear the added cost. Some funds to support experimental training for differentiated roles are available under the Education Professions Development Act. Additional financial support is available under other USOE titles and may be available from private foundations which are interested in experimentation to improve instruction.

Because the idea is still young, the bulk of material available on differentiated staffing is theoretical.[1] The best sources of empirical data are still the schools[2] which are experimenting with differentiated staffing.

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[1] McKenna, Bernard H., compiler. A Selected Annotated Bibliography on Differentiated Staffing. Washington, D. C.: National Commission on Teacher Education and Professional Standards, National Education Association, and ERIC Clearinghouse on Teacher Education, October 1969.

Experimentation with a new idea is risky when there are no precedents on which to proceed. But risk-taking is necessary if schools are to begin to meet the great challenges of human progress.

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[2] National Education Association, National Commission on Teacher Education and Professional Standards. The Teacher and His Staff: Selected Demonstration Centers. St. Paul: 3M Education Press, 1967. Copyright 1967 by the National Education Association

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STAFF DIFFERENTIATION: ANSWER TO THE MERIT PAY DEBATE

Rozanne Weissman

> Differential staffing of teachers is not only a heatedly controversial topic of debate in professional circles across the country, but it is highly complex, shows itself in many forms, and cannot easily be explained. This article, written by the staff of the Division of Press, Radio and Television Relations of the National Education Association and coordinated by Rozanne Weissman of that staff, attempts to summarize and give perspective to the newer concepts of differentiation. This article will serve as an introduction to "A Case for Differentiated Staffing" by Dr. M. John Rand, which will be published in the March issue of CTA Journal. Dr. Rand, mentioned in the article below, is superintendent of Temple City Unified School District.

"We hold these truths to be self-evident: that all men are created equal; that they are endlowed by their Creator with certain unalienable Rights; that among these are Life, Liberty, and the pursuit of Happiness...."

— Declaration of Independence, 1776

If a prize were to be awarded to the American institution which practiced and perpetuated this equality principle most extensively and unquestionably, the schools of this country would most likely be the recipient--despite contradictions from ghetto and rural segments.

Many schools operate on two basic premises: All teachers and all students are equal; and, by making no structural provisions for differences in either, have created an organization which is highly UNequal to students and teachers alike, maintain advocates of new school concepts.

Most schools treat students as a group rather than as individuals with different needs and capacities. Teachers, too, are treated as interchangeable units and utilized in similar ways whatever their experience, career desires, motivations, talents, or ability to assume additional responsibility, staff differentiation proponents point out. An outstanding teacher can be replaced by an inexperienced graduate because the job of a veteran and novice teacher differs little in this profession with no career progression WITHIN the field.

While it is generally granted that ours is still the best system yet devised for educating the masses, a new staffing plan--the differentiated teaching staff--proposes new roles with greater responsibility, decision-making, and financial reward for teachers and it questions established practices.

"The need is to create an organization with the capacity to differentiate in its treatment of students and its harnessing of resources to provide equality of opportunity for all students," claims Don Hair, assistant superintendent in charge of instruction for the Kansas City (Mo.) Public Schools. The Kansas City schools have a differentiated staffing program in two new central city schools and have received an Education Professions Development Act grant for the program.

Staff differentiation involves a restructuring of the school organization to permit teachers to make better use of their talents, and, most importantly, to improve the learning situation for students, according to advocates. As any other new proposal, it is only one possible approach--not a panacea for education's ills--but does serve in providing new avenues for thought, discussion, and experimentation regarding ways to deal with needed changes in education.

Our school organization system was established when teachers generally completed only ninth grade and perhaps a year of normal school.

Teachers today have years of college, greater expertise in dealing with subjects and students, and more qualifications to participate in decision-making but are generally restricted because of the 100-year-old, unquestioned autocratic organizational structure.

"Lines of authority become blurred when teacher competence increases or matches the top hierarchy's and when subordinate position rests more upon tradition than ability." observes M. John Rand, superintendent of the Temple City (Calif.) Unified School District, which has a differentiated staffing project. Rand views teacher militancy as signs of unhappiness with roles as mere decision implementers and as a movement toward professionalism, which is straining the present structure.

"The teacher today, even with a Ph. D., is low man on the totem pole who sometimes cannot double his salary. The only path to high salaries is administration or another field. We should reverse this hierarchical attitude," points out NEA TEPS officials Roy Edelfelt and Dave Darland," and recognize that the teacher is the vital key to the educational process and should stay with the kids."

Dwight Allen, dean of the University of Massachusetts education school, speaks against the current school system: "Talented teachers easily worth $18, 000 left teaching long before reaching $7, 500... Endurance is the only reward criterion...Merit pay and other proposals aimed at removing symptoms compound waste....Good money follows bad as more teachers are hired to make up for inefficient use of teaching talent hidden but on hand...."

Allen claims the system will collapse under its inadequacies and new demands for better education and for education to accept more responsibility for society's future. He notes, "There is no room for comfortable mediocrity. The issue now is whether change will be compulsive or rational since current staff and salary patterns make problems difficult to solve." The greatest barrier to staff differentiation is not physical or financial, according to many staff differentiation experimenters, but our own previous conditioning to the organizational structure which blocks our vision to perceiving problems and solutions.

Many educators are talking about staff differentiation, but few know much since more is on paper than in practice. A fully differentiated staff includes classroom teachers at different responsibility levels and pay (assigned on basis of training, competence, educational goals, and difficulty of task), subject matter specialists, special service personnel, administrators, subprofessionals and nonprofessionals as teacher aides, student teachers and interns. It should provide for greater individualized instruction, flexible scheduling, and salaries up to 3-1/2 times the beginning salaries for some teachers.

Theorists compare teaching to the medical profession at the turn of the century when the family doctor did everything. In staff differentiation, the teacher could be compared to today's general practitioner, with aides working under him and learning-reading and interpersonal relationship specialists becoming involved with a student through his referral.

Edelfelt, TEPS executive secretary, suggests a one-year internship with lesser responsibility for beginning teachers, more extensive evaluation before receiving tenure, and different entry points to enable housewives wanting to work part-time or persons accomplished in other fields to enter education.

Determining and scaling differentiated roles and duties of technicians and specialists is one of the greatest challenges in staff differentiation. Emphasis can be placed on: A Master Teacher concept (the Master Teacher coordinates instruction by a group of teachers); curriculum or technology core structure (teachers classified by experience and ability to contribute to location of new information to bring curriculum and related knowledge into proper perspective in learning); or learning function or service (teachers can call on the Master Teacher, other specialists, or technical assistants to work with students). Teaching can be differentiated vertically, by degrees of difficulty of the teaching task, or horizontally, based on different roles of similar difficulty.

Models vary, and it will probably never be feasible to promote one as "best." Staff differentiation advocates caution each school to analyze its own problems, purposes, and existing practices and then tailor its staffing pattern to them.

"Change for fad's sake is an unworthy alternative," Don Barbee, San Francisco State College education professor, emphasizes in a TEPS statement. Noting that sometimes educational innovations have been adopted in name but not in practice, he stated, "It is important that the basic intent and characteristics of differentiated staffing be understood at the outset and implemented in fact."

Advocates of staff differentiation and those who view it dimly both agree: Teacher participation in studying the idea and putting a program into effect is ABSOLUTELY ESSENTIAL for it to be workable.

Last year, Montgomery County, Md., teachers struck over two major issues: Desire to raise the base pay and drop a staff differentiation program proposed from above. Complaints of lack of teacher involvement on the proposal, charges that this was a "back door approach to merit pay," and the attitude "Why should I get less money when another teacher gets fewer students and more preparation time and money?" were very apparent during the strike, according to Gary Watts, NEA field services director.

"Staff differentiation will never get a fair trial without teacher involvement," he emphasizes, "because teacher feedback at this point mainly concerns the process--the fact that 'aborted' programs of staff differentiation are being imposed from above. Local associations should work on problems of specific schools and districts. In many places, they may conclude that the existing system is best or that staff differentiation, for many reasons, may be unworkable there."

In a new element of cooperation between a state association, its curriculum instruction committee, a local association, school staff, and management of a school district, the California Teachers Association originated a project at Fountain Valley's Bushard School to analyze what situations arise and how a staff reacts when they assume responsibility and accountability for involvement in decision-making. Questions expected to be answered: What, if any, staff differentiation will evolve from within the staff? How will the role of the building principal change? What would be the first priority? How would they measure effect of their decisions upon learners?

Pat Clark, a Fountain Valley coordinating teacher and member of CTA's Commission on Educational Policy, first taught in a good traditional school which "was structured, teacher-centered, used textbooks as a Bible, and had grade level standards." She believes Fountain Valley's program is "child-centered, meets individual student and teacher strengths and weaknesses, has a non-graded instructional program (a third grader can be on seventh grade math level), and uses texts as resources rather than gospel while employing a multi-text, multi-media (film, tape, records) approach."

Mrs. Clark emphasizes, "If we're in teaching because we care about kids, our concern about any new program should be: Is it better for kids? If so, it should be tried. Staff differentiation is the same as recognizing physical differences among youngsters. Instead of asking: 'Is this child ready for this school? we should ask whether the school is ready for that child.' Otherwise, it is like trying to make the wrong shoe fit a foot rather than logically measuring the foot first and then fitting the shoe to it. It requires careful prescriptive teaching with the staff cooperatively diagnosing each child's needs. The instructional program is then tailored for that student. It often involves more work for the teacher but is worth it."

New programs at Fountain Valley begin at the "grassroots level" with teachers and involve the staff throughout. Mrs. Clark suggests that districts trying to set up a staff differentiation program do so on a small scale trailored to suit their particular needs.

The coordinating teacher, who must be proficient in learning theory and interpersonal relations for work with both students and teachers, has no direct class but is assigned to a learning center--a resource and teaching center with classes clustered around. Three coordinating teachers in each school get 10 per cent above the base, while the learning analyst, a psychologist in the center, gets 15 per cent more. The district uses teacher aides and assistants and has 1,400 parent volunteers--a $19,000 tax saving for the community.

The differentiated salary schedule is expected to be a major objection to differentiated staffing plans. Differentiated salaries for teachers--by whatever name--have been one of the most controversial and longrunning debates in education. After working hard for equitable salary treatment, many teachers view the new staffing proposals as a destruction of the single salary concept, allocation of good salaries to a favored few, creation of super classes of teachers, and rewards for teaching less. Many see them as a disguise for merit pay which created serious morale problems and charges of discrimination and preferential treatment through the years.

Under merit pay, however, added pay is for merit, judgments, not for added responsibility. Under staff differentiation, teachers perform differentiated roles. Remuneration is related to the roles, with those having greater responsibility receiving more money. Teachers should be more likely to accept the fact that a fellow teacher gets a salary increase knowing that additional responsibility goes with the raise, staff differentiation advocates believe. While we profess that advanced training and experience on the job makes a better teacher, we do not utilize it in schools by differentiating teacher responsibilities.

The merit pay debate--primarily because of its high mortality rate and long list of failures --has died down in recent years. Now educators are asking a more relevant question: Can a school system justify rewards for "superior" teachers without considering how it may use their talents more effectively? Now there is a strong need for school systems to study and evaluate new patterns of staff utilization for their effects on children, the learning process, and their ability to secure and develop the teachers it needs.

"Eliminate the pay factor and hierarchy of teachers," suggests the NEA field services director. "Different horizontal career tracks can be set up for teachers, and they can advance on those. Staff differentiation has been criticized as a way to pay some teachers excellent salaries by keeping three-fourths of the staff below $10,000. All teachers should be paid more so that they can afford to stay in teaching rather than creating a hierarchy of teachers at different pay levels. Today, even the worst teacher is not overpaid! Again, the hierarchy is still backwards. The most outstanding teacher, rather than teaching less, should spend more time in the classroom."

Temple City did a five-year follow-up study of graduates and discovered it had an "outmoded curriculum and did not do an adequate job of preparing students for citizenship, life, or use of leisure time." Two years ago, they assessed the needs of students, teachers and society. The current project, put into effect in one intermediate school, Oak Avenue, in September, is based on an efficiency study in time and staff utilization developed by teachers.

The four-level teacher hierarchy has all teachers functioning as classroom teachers but not for the entire day. The beginning Associate Teacher ($6-$8,000) has a ligher load. The Staff Teacher (BA plus one year , $8-$10,000) carries a full teaching load minus professional tasks and probably has tenure. Under a year-long contract, the Senior Teacher is an expert in a subject or skill area, has an M. A. and earns $12-$14,000. The Master Teacher (a curriculum or research associate) is a scholar and research specialist who can apply relevant research to classroom practice and earn $14-$18,000 for 12 months. For teachers working less than a full year, additional time on the job could involve teaching, curriculum, research, study at a university, travel, or related work experience. Flexible scheduling to allow teachers to work together during the school day and to allow for small group and individualized instruction is essential to the program.

Teachers are involved in decision-making through an academic senate because they would be best informed and most responsible for implementation of decisions. The two top levels (no more than 25 per cent of the staff) would not have tenure and would be evaluated by teachers who receive their services. A school manager would handle business functions to relieve the principal for instructional program tasks. Objections to differential staffing in some places are expected to be strong from administrators who do not want to share decision-making power, although

Temple City reports good administrative acceptance of the program.

Staff differentiation alone, even if successful, will change only part of the system. More productive use of time, space, environment, and resources is essential. Teachers will also have to assume regulation of the profession through evaluation of colleagues, a privilege highly prized and guarded by many other professions. Advancement beyond Staff Teacher level should depend upon evaluation by colleagues who would then continue to evaluate services received by the Master Teachers. For professional autonomy, legislation and policies protecting rights and responsibilities (reciprocity of certification and retirement practices among states) and dealing with poor performance are needed. To change the organization of the schools, a reorganization of teacher education would also be needed.

There are many sides to all new proposals. Some advantages cited: Eliminates automatic promotion; provides for teachers who want only limited professional responsibility; encourages young talent to grow through higher salary aims and different roles; provides flexibility and better use of teacher time and talent, school facilities, and other resources; recognizes competence and relates it to responsibility and salary; provides adequate salary to reduce the teacher dropout problem; allows for more individualized instruction; provides greater job satisfaction for teachers who put talents to use; provides career pattern and greater professionalism; provides for learning to teach on the job; allows training of some of the staff rather than retraining entire staff when change is desired; provides organization for more effective link with colleges. A number of these advantages are realized by some school systems through other programs.

Possible problems cited: Undesirable hierarchical status distinctions if position and titles are overemphasized and openness not maintained, greater personality conflicts with new roles and patterns of interpersonnel relationships, resistance by some administrators and teachers, decision making opportunities becoming limited for those on the bottom because of bureaucratic expansion, teachers becoming more remote from students if they rely too heavily on auxiliary personnel, too much emphasis on supervisor-teacher relationships and roles and not on student-teacher relationship, extensive differentiation restricting perspective and inhibiting individual initiative if role definitions become operational straitjackets. It assumes that competence can be recognized and defined in this instance--overcompensation in the lower ranks during the transition period and inclusion of a "grandfather" clause would be necessary.

Any major undertaking and change is bound to run into problems. As Don Hair remarks, "The Kansas City project may fail, but we can always return to what was, if necessary. Not to have explored what should be, though, would have been inexcusable if we are to consider ourselves professionals." Although advocates maintain that staff differentiation can meet many of the objections teachers have to merit pay while also serving to recognize outstanding teachers both financially and through greater use of talents and increased responsibility, only time and experimentation will tell.

It is premature to judge the scattered differentiation projects now in operation. But, as Roy Edelfelt philosophizes: "To dream a possible dream is no small task. To make dreams a reality is a monumental one."

Source: Today's Education - NEA Journal, March, 1969. Reprinted with permission from the National Commission on Teacher Education and Professional Standards, National Education Association.

QUESTIONS AND ANSWERS ON DIFFERENTIATED STAFFING

Fenwick English

As many pioneering school districts around the country are trying differentiated staffing, a variety of approaches to differentiation have developed. The models vary according to basic staff structure and the philosophy of the different schools and districts. My answers to the questions below are a reflection of the philosophical position of one district, the Temple City (California) Unified School District, and its teachers; they do not necessarily reflect professional consensus.

The Temple City plan, the result of an 18-month study by the staff and administration financed by the Charles F. Kettering Foundation, went into effect at two Temple City schools last year.

What does differentiated staffing mean? Is there one definition?

To differentiate a teaching staff means to separate by different roles. There is no set definition of a differentiated staff, since at this time many models, with a variety of bases, are being proposed, developed, and tried.

What is the purpose of differentiated staffing?

The basic purpose of differentiated staffing is to provide a more individualized program. Differentiated staffing makes it possible to make maximum use of teacher talent. Although all teachers are not equal, the tendency has been to pretend that they are--to say, "A teacher is a teacher." Organizationally, this has led to inefficiency in using human resources. Differentiated staffing corrects this by assigning teachers on the basis of matching their various combinations and degrees of talent to children's needs.

Differentiated staffing serves a further purpose by creating an organizational incentive system that makes teaching a career and permits teachers to advance as teachers rather than having to move out of teaching into administration in order to progress.

What are the essential ingredients of a plan for a differentiated staff?

These may vary for different models. The Temple City plan is based on the following principles:

1. Differentiated staffing is a means of producing more relevant student learning.

2. Teaching must be the primary function of all teachers.

3. Teachers must become formal professional partners with administrators in the decision-making process.

4. Teachers must be relieved of many nonprofessional functions now required of them.

5. Teachers must perform the self-disciplinging or regulating activities of their own profession.

6. Organizational flexibility must be created through the use of flexible scheduling.

7. New kinds of teacher in-service and preservice programs need to be developed to prepare teachers to be able to function in different roles.

8. The advanced positions in the teacher hierarchy are service rather than supervisory positions.

9. Some teachers should earn more than school administrators.

Can roles be differentiated? Vertically? Horizontally?

Teaching roles can be differentiated just as other professional roles can be. Teachers are already familiar with a number of means of differentiation. Most of these bring about vertical differentiation, using additional responsibilities as the basis for upgrading assignments. This kind of differentiation may be in the form of extended contractual periods or of extra pay for such services as developing curriculums, acting as leader of a teaching team, or performing a special function, like coaching football or directing the band.

How will levels of competence and responsibility be determined?

The first step is to develop a set of generic models that separate teacher roles. These models can then be tailored to the needs of individual schools by the teachers, who are the best judges of what services are relevant to their problems. If the advanced roles are being created in order to help classroom teachers upgrade their teaching, the teachers should be the ones to say what help they need.

Who will evaluate the various levels of competence?

Evaluation is a professional responsibility and should be practiced by the professional teacher. Competence is measured in terms of the degree to which the staff receives the services it has determined it needs.

Some will question whether good teacher relationships can prevail when teachers evaluate each other. The Temple City plan, however, assumes the responsibility of teachers, as competent, mature adults, to engage in appraisal of each other.

Will differentiated staffing help teachers to do a better job?

Yes, if teachers have defined the help they need to do a better job, and if they are actually involved in the selection, evaluation, and retention of their colleagues. A differentiated staff will help create organizational self-renewal, for teachers in their new roles will feed into each school a steady stream of promising new ideas and practices to improve the quality of the instructional program. The use of auxiliary personnel will relieve teachers of many of the nonprofessional tasks that now consume much of their time and energy and will permit them to concentrate on the instructional program.

Will it merely introduce a new administrative level?

Not if teaching remains the prime function and if all personnel have regular teaching responsibilities. A differentiated staff in which differentiation is based on additional responsibilities cannot very well be superimposed upon the traditional school structure where teachers are with children all day long. Some type of flexible scheduling will allow all teachers to have regular teaching duties and will permit those with additional responsibilities to meet with more children than at the present time. In this way, the talents of teachers are expanded rather than reduced as they advance. Teachers are not promoted away from children.

Where is it being tried? What models exist?

Prototypes of differentiated staffing have existed for some time. Most early models have used additional duties as the method of separating teacher roles beyond the staff level. The models being developed now are more sophisticated and more formal, in that they involve a teacher hierarchy. As the profession gives more attention and thought to staff differentiation, far-reaching and perhaps more creative models will be conceptualized.

One model recently proposed by Bernard McKenna utilizes a five-level learning-task hierarchy, and identifies the teacher technologist; the liberal enlightener (analyzer of areas of knowledge considered important by the general population); the identifier of talents; the developer of talents; and the facilitator of attitude and interpersonal behavior development.

In another proposal, a daring and provocative one, James Hall conceives of a differentiated staff as an exemplar of ethnic balance and harmony for students to emulate.

Dwight W. Allen, dean of the School of Education at the University of Massachusetts, has proposed a model in which the teaching staff is divided into four levels of responsibility, as well as one in which separate schools would be organized vertically around a subject or discipline. Students would transfer from one school to another during the school day for various types of in-depth learning experiences. Teaching responsibilities would be delineated for each discipline within each school.

How can models for differentiated staffing be evaluated?

Differentiated staffing is not an end in itself but a means of improving learning, so the best way to evaluate a model is through the development of curriculums that can be measured in student outcomes. In the meanwhile, because schools cannot wait until this task is finished (if it could ever be considered finished), alternative models can be compared with each other. It can be assumed that any model that allows teacher talents and time to be used more effectively enhances learning, since the teacher is the key facilitator of the learning process.

What are the colleges doing about preparing teachers for differentiated staffing?

Few teacher prepatory institutions are graduating candidates who understand how to teach in a flexible school requiring team teaching, how to use auxiliary personnel effectively and delegate responsibilities to them, and how to engage in colleague evaluation or organizational decision making. Most colleges are still producing graduates who can function only in the traditional organizational patterns.

New training programs need to be initiated not only for teachers, but for school administrators as well. Differentiated staffing implies decentralized decision making; it removes the administrator from many unilateral decision-making situations and places him in a group-centered collegial environment. Traditional schools of administration with their accent on conventional organizational theory, which considers authority as the central criterion of controlling and motivating people, must retool with a more modern theory that is in harmony with the desire of teachers to be formally included in the decision-making process, and to be considered as mature, competent professionals.

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ENHANCING TEACHING AS A CAREER

Ronald G. Corwin

Our country faces the problem of finding more flexible ways to organize education for a rapidly changing society. One part of the problem is a structural lag in our school system. The current interest in creating more differentiated, specialized work roles within teaching can be viewed as a response to this lag.

In an otherwise highly specialized economy, teachers over the years have reluctantly assumed more and more responsibilities for a remarkable variety of new functions. And they have performed these functions without the benefit of adjustments that would have given them the support of the rest of the system.

Now, however, developments--which range from pressures to prepare increasing numbers of children for college to the deterioration of our inner-city schools--have made it clear that true individualized instruction is impossible as long as teachers have to cope, unaided, with a multitide of tasks and responsibilities.

Four specific, interrelated developments are largely responsible for the new division of labor, known as differentiated staffing, that is beginning to emerge. The knowledge explosion is the first (and in a sense the foremost) development. The structure of knowledge has become so complex that it can neither be comprehended nor treated as a whole. Indeed, in view of all the forces now known to influence education, it is fair to say that no one occupation will be sufficient in the schools of the future; teachers, social workers, nurses, psychologists, businessmen, and many other groups will need to collaborate more closely.

Second, as the primary condition under which society will grant professional status to a given occupation, individuals in that occupation must demonstrate that they have acquired specialized knowledge which other groups do not have. The current efforts to professionalize teaching, accordingly, have encouraged greater specialization of work roles--and in particular a form of specialization based on function and carrying broad authority for specialists to find the means necessary to fulfill given responsibilities.

Third, increasing bureaucratization has imposed many duties on teachers that have deflected them from their primary teaching functions. Differentiated staffing allows teachers to delegate work to people in other positions and, hence, provides a means of separating out bureaucratic duties.

Finally, technology is revolutionizing the self-contained classroom. This time the process is not only creating additional roles, but is providing the means by which teachers can escape traditional roles and begin to specialize.

Of course, greater differentiation and specialization will undoubtedly aggravate other problems, such as the problems of overlapping authority lines, competition among teachers, sharing authority over students, and coordinating and evaluating independent teachers and other professionals who will have to cooperate closely. Furthermore, as new administrative hierarchies evolve in response to these problems, the most specialized personnel may find themselves assuming more administrative duties and becoming increasingly removed from their student clientele. At least, however, such hierarchies may be controlled by teachers.

On the other side of the coin, children will be less subject to the dictates of a particular teacher. Also, specialization is likely to have welcome returns for the quality of teaching in general, and in particular it may help to increase the sense of commitment on the part of teachers who enter and remain in the profession.

Until now teachers have adamantly rejected anything that might increase status distinctions among themselves. Their attitude has probably resulted, at least in part, from a determination to maintain their cohesiveness in the face of administrative threats. But differentiated work roles can be arranged in such a way as to provide meaningful career ladders for teachers, which should result in more equitable rewards for those most committed to their work.

Career ladders may increase internal competition among teachers within a particular school, but they would circumvent the "dead end" quality of teaching as it is presently constituted, which seems to have prompted many teachers to leave the classroom. In addition to increasing commitment to teaching in general, career ladders could be used to increase commitment to specific fields within teaching. It soon will be possible to use promotion as a reward for teachers who have been effective in dealing with certain types of problems-- working with disadvantaged children, for example--without requiring them to forsake their area of specialization. It is this characteristic, more than any other, that could transform teaching from a job into a career.

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EXPERIENCES WITH DIFFERENTIATED STAFFING

Edward W. Beaubier

Four key concepts that have become apparent during the past three years are basic to the differential staffing patterns now in use in the Fountain Valley School District.

First, it is essential to establish clear-cut, measurable learning objectives for the youngsters to be served by the plan. These objectives make up the criteria for judging the success of a plan for reorganization.

Second, and of great importance, the honest involvement of teachers in decision making is crucial to the development of any program. Any changes that affect the role of the teacher need the involvement of that teacher in the decision-making process.

Third, if wise decisions are to be made with regard to teaching and learning, the staff that works directly with the youngsters to be served must make them. The school must have much more autonomy than is usually the case. This autonomy necessarily involves decentralized staffing. If the school psychologist, for example, is to be truly involved with the learning program, he must be made an integral part of the teaching staff that carries this responsibility.

Fourth, if teachers are to be effective decision makers, they need in-service education in group dynamics and human relations skills.

Under the Fountain Valley plan for staff differentiation, the school becomes a stage for learning and an operational center for the teachers' supporting staff. The 12 schools in Fountain Valley have reorganized the use of space so that every six or eight classrooms are clustered about a core room, called a learning center. This room houses diagnostic materials, electronic teaching devices, tape banks, test banks, science centers, libraries, reference and study areas, and resource materials. Each school has a primary (K-3), middle (3-5), and upper (5-8) learning center. Learning centers are so organized that several activities can be conducted simultaneously by different members of the teaching staff.

In the Fountain Valley plan, each person on the teaching staff performs a defined role.

The coordinating teacher is a carefully selected expert in curriculum, has in-depth knowledge of child growth and development, and an understanding of human relations skills. The coordinating teacher does not have students assigned directly to him. His primary task is to provide leadership for the six or eight classroom teachers in the teaching team.

The coordinating teacher is involved with learner diagnosis, selection of appropriate learning materials, and cooperative student evaluation. His activities may take place within an individual classroom or in the learning center. The majority of the coordinating teacher's time is spent in direct or indirect instruction with individuals or small or large groups of pupils. The type of instruction a pupil receives is based on a diagnosis that involves the professional judgments of the classroom teacher, the coordinating teacher, and the other members of the teaching team.

The services provided by the coordinating teacher require that he be available for daily conferences with classroom teachers to assist them with questions and problems concerning the diagnosis, prescription, and evaluation for each child. These conferences are held during recess, noon breaks, and before or after school. In addition, many schedules have been adjusted so that youngsters are dismissed at noon one day per week to provide a large block of planning time for the teaching team.

A committee composed of both teachers and administrators selects the coordinating teachers on the basis of in-depth classroom visitations, oral interviews, and recommendations from supervisors.

Because the coordinating teacher operates in a staff relationship with other members of the teaching team, peer relationships are crucial. Both verbal and written communicative skills are important if an effective teaching-planning program is to operate.

The learning analyst, a psychologist with a psychometric or counseling background, works with the classroom teacher, coordinating teacher principal, and other special teachers. His primary responsibilities are to:

Conduct testing, placement, and referrals (if necessary) for the educable mentally retarded, educationally handicapped, and academically talented

Conduct research and develop ideas for curriculum design based upon learning theory

Field test materials and evaluation instruments in the classroom and learning center

Conduct in-service education for the total team regarding the cognitive, affective, and psychomotor problems of children who have learning difficulties

Obtain and disseminate information regarding work done in the schools.

Each learning center and its teaching team is staffed with a teacher aide who works closely with the team to assist teachers in a noninstructional capacity. His function is to "free teachers to teach." This paid nonprofessional is responsible to the coordinating teacher, and all requests for his services are channeled through this team leader.

Another means of freeing the teacher to teach at Fountain Valley is having teacher assistants from the University of Southern California work in noninstructional areas. (They also complete student teaching requirements during a 12-month program.) "Work-study" college students and "work-experience" high school students also give noninstructional assistance to the teaching team.

Additional assistance comes through a community action program, in which over a thousand parent aides work as volunteers in service capacities once a week for four hours. Some fill requests from the individual school learning centers and classroom teachers by making visual materials, teaching devices, and instructional media. Some assist in the central library with such tasks as shelving books, filing catalog cards, checking books out, and circulating requested books to the learning centers. Others serve as health, welfare, and safety aides to assist the coordinator of health services with hearing tests and with immunization and safety programs.

To meet the needs and interests of individual children, the teachers in the learning centers require a centralized storehouse of ideas, materials, equipment, and personnel. In Fountain Valley, the Curriculum Materials Center serves as such a storehouse and also provides a laboratory where teachers can work with a staff of technicians and coordination.

The Center provides for in-service programs directed by the local school district and universities, and for library services, "idea" booklets, and such audio-visual teaching aids as study prints, films and filmstrips, transparencies, tapes, and records.

Our ultimate goal in Fountain Valley is to fashion a system that will provide for its own continuous renewal. The educational team must not only deal with the process of change but, in addition, must answer the question of "change for what?" Our participation in the National Education Association's Center for the Study of Instruction will help to bring about further constructive rethinking of our program, curriculum development, staff training, analysis of data, and strategies for change.

Progress has to do with results--motives and intentions are the business of abstract thought.

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EXPERIENCES WITH DIFFERENTIATED STAFFING

Donald Hair

In September 1968, a differentiated staffing plan was implemented in two schools in Kansas City, Missouri--Although this two-year experimental program will undoubtedly require considerable modification, it does initiate a pattern of staffing that attempts to give teachers the chance to advance in status and salary and yet remain in teaching.

To establish this program, we examined the kinds of tasks to be performed in the operation of an elementary school or a junior high school. The next step was to determine the different job categories by grouping these tasks. In defining job classifications, we were careful to consider items such as the following:

Instructional tasks to be assigned to a particular job category
Responsibility for coordinating a level or an area
Responsibility for prescribing materials and techniques of instruction
Special competencies required
Responsibility for preparation of materials
Opportunity for creativity
Length of the work day and/or work year

We arrived at the following job classifications: coordinating instructor, senior instructor, instructor, associate instructor, intern, student teacher, paraprofessional, clerk. Certificated personnel fill all of the instructor categories.

To use the elementary school as an example, the following distribution of personnel has been provided: 3 coordinating instructors, 7 senior instructors, 18 instructors, 4 associate instructors, 4 interns, 8 student teachers, 8 paraprofessionals, and 3 clerks.

All four instructor classifications are involved in the instructional process. The descriptions that follow are considerably abbreviated, but they do indicate some of the ways in which the classifications are differentiated.

The coordinating instructor coordinates the activities in a broad segment of the curriculum; supervises the ordering and distribution of instructional materials; teaches demonstration classes on occasion; investigates and initiates curriculum innovations; plans evaluation of his segment of the instructional program; plays a key role in the development and implementation of in-service education activities.

The senior instructor serves as a team leader; is responsible for scheduling both daily and long-range activities; exerts leadership in a subject field or a grade level; diagnoses and prescribes for needs of pupils; supervises training of student teachers.

The instructor participates on the team as a full-time teacher; is responsible for large-group presentations in his field of specialization; works with individual pupils and small groups of pupils in enrichment and development activities.

The associate instructor teaches part-time; participates in teaching as assigned by the senior instructor; participates in the implementation of plans and schedules developed by the team.

The intern contributes to the teaching team in his field of instruction; participates in teacher activities as defined by the coordinating instructor; follows a course of action planned with the college or university with which he is affiliated.

The student teacher observes and participates in teaching activities as prescribed by the senior instructor; follows activities consistent with the purposes of student teaching as agreed upon with the teacher training institution.

The paraprofessional, who is a full-time or part-time member of the staff, supervises movement of children; takes daily attendance; prepares instructional materials as directed; operates machines as required.

Every facet of a school district operation ought to contribute to the improvement of learning opportunities for boys and girls. This new pattern of staffing should help the Kansas City schools to reach that objective by attracting competent teachers in the first place; by retaining them; and by using differentiated assignments to make the best use of talent. It should help to attract and hold men teachers in the elementary schools.

The Kansas City plan requires no prescribed number of years of experience at one level for advancement to another classification. Teachers are protected by the continuing contract law of Missouri, but a senior instructor or a coordinating instructor has no guarantee that he will occupy that same position next year.

Problems are bound to arise with this new staffing plan, and it will take time for people to learn to function in new roles. However, if schools like these can help to provide more professional opportunities, a brighter future may be in prospect for the career teacher.

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THE WAY IT LOOKS TO A CLASSROOM TEACHER

Charles E. Olson

I believe that Differentiated Teaching Assignments (DTA) is a workable arrangement that, carefully tailored for individual situations, could allow many school systems to get the fullest benefit from their teachers' talents.

DTA could serve as a means of giving outstanding educators who are actually involved in the process of classroom education an earning power equal to or greater than that of supervisory or administrative personnel. Thus, under DTA, instead of having to turn to administration in order to advance financially, teachers who have the ability to provide excellent learning experiences for children as well as the ability to help less expert teachers could earn more money while remaining in teaching.

I do not believe that DTA is merely a back-door approach to merit pay. Under merit pay plans, certain teachers receive more pay than others whose responsibilities and work loads are the same. With DTA, on the other hand, teachers could conceivably receive more money as recompense for additional responsibility, longer working hours, and less vacation time.

Although a good DTA plan is not a plan for merit pay, a school system adopting DTA needs to take precautions against its deteriorating into one. To avoid the possibility of preferential treatment, the system should establish and observe detailed job descriptions. Teachers who are paid more must earn more. No DTA plan should guarantee that teachers in the upper levels of job classification will be in the same jobs the following year. The inclusion of teachers in committees charged with selecting and reevaluating upper-echelon teachers can be one safeguard against having DTA become merit pay.

I have asked myself if DTA, with its senior teachers or coordinating teachers, does not put emphasis on the personnel who are not teachers. I believe that the answer is no. The primary goal of DTA is to improve the quality of instruction by placing the most competent teachers in the most responsible positions.

One extremely attractive feature of DTA is that it allows all members of the teaching staff to have classroom contact. All members are able to keep abreast of current thinking and practices. I believe that having regularly scheduled classroom contacts will make coordinating instructors better organizers and better resource persons.

One of my gravest concerns about DTA is that a school system might inaugurate it without proper preparation. In order to preclude professional jealousies, a great deal of explanation of the reasons for changes in staffing and procedures should pave the way for DTA.

DTA would have to be adapted to fit each individual school system. Educational goals and philosophies would need redefinition. Then, after at least a year of intensive study, DTA would be negotiated through the local teachers association.

In a system contemplating the adoption of DTA the local teachers association should first form a committee of teachers and administrative staff to work with the school board to develop policies regarding such pressing problems as leave, working conditions, teacher competence, and salaries. DTA will not solve these problems. Indeed, if they are not solved before its adoption, DTA might aggravate them.

DTA is most workable in a school system that is willing to pay the classroom teacher a better than average salary. If DTA is used to upgrade only a few teachers' salaries and the rest are forgotten, it will not accomplish much in the way of change. For the school system that is properly geared, however, I believe that DTA has much to offer.

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ACT VIEWPOINTS

Association of Classroom Teachers, NEA

Advantages of Differentiated Teaching Assignments for Classroom Teachers

Differentiated teaching assignments for classroom teachers appear to provide--through a program responsive to the interests, abilities, and needs of the individual learner--a more meaningful educational experience and a climate favorable to the development of each child to his potential.

By fostering good teaching techniques, such as flexible assignments, modular scheduling, matching of instructional resources with learners' needs, individualized learning experiences, and a clinical approach to meeting students' needs, differentiated teaching assignments for classroom teachers should provide effective education.

Differentiated teaching assignments should provide for more effective use of human resources by doing the following:

Recognizing the individual differences of teachers; allowing classroom teachers to assume responsibility and initiative commensurate with their interests, talents, and abilities; providing a climate that enables teachers to identify their personal strengths and weaknesses and to develop new areas of competence and interest; involving the teacher in decision making on curriculum planning, teaching methods, utilization of time, and development of relevant in-service education programs; establishing a climate that fosters creative involvement of staff and greater opportunity for learners; creating a team approach to education, based on the concept that the development, implementation, and evaluation of the total educational program is the ongoing responsibility of the entire staff and that this responsibility includes taking part in the initial selection, retention, and assignment of other team members.

Differentiated teaching assignments for classroom teachers should provide opportunity for interaction among all persons involved.

Drawbacks of Differentiated Teaching Assignments for Classroom Teachers

People who are committed to change sometimes have a tendency to move too quickly. In so doing, they may fail to involve all concerned--especially classroom teachers, the local association, and the community-- and attempt to change classroom teachers without recognizing the need for comparable changes at other levels of the educational hierarchy. Differentiated staffing cannot succeed if the roles of administrators do not change at the same time that the roles of the classroom teachers change.

Allocated funds may be insufficient to do an adequate job of planning, implementing, and maintaining a satisfactory program of differentiated teaching assignments for classroom teachers.

In general, neither teachers nor administrators are prepared to operate--in terms of methods of instruction and administration--within the new framework required for differentiated teaching assignments.

Much of the current literature on differentiated staffing raises questions in the minds of classroom teachers that are not easily answered. Some articles, for example, imply that differentiated staffing is the answer to the current educational crisis, although investigation shows that many of the so-called successful programs are only in experimental stages--perhaps not even off the drawing board.

Other articles promote differentiated teaching assignments for classroom teachers on the basis of what it will do for classroom teachers rather than on the basis of its potential for improving the educational opportunities of students. One reads that differentiated teaching assignments will provide career incentives for classroom teachers, will attract and retain outstanding teachers in the profession, will give the "good" teacher an opportunity to stay in the classroom rather than to have to move into administration for advancement, and will bring added prestige to the teacher. Classroom teachers seriously question these claims and ask, "Where is the proof?"

Some articles contain statements about differentiated staffing that are contradictory or incompatible. A paper may claim that teachers will receive increased pay based on increased responsibility and elsewhere state that teachers will receive increased pay based on evaluation of their competence. (The latter concept is interpreted as a backdoor approach to an old issue--merit rating--and classroom teachers resist it. The former concept is more readily acceptable).

Another document may state that a differentiated teaching plan does not create a new hierarchy within the educational system and then proceed to describe a pay system that implies that differentiated staffing does indeed create a new hierarchy.

Still another article may imply that teaching and the person who teaches are of paramount importance in education, but the accompanying salary schedule provides pay in reverse proportion to the time spent with students.

Teachers fear that a staffing pattern of differentiated teaching assignments may be used as a means of cutting school budgets by paying higher salaries to the few teachers who reach the top bracket (evidence indicates that usually these positions are limited in number) and lower salaries to the vast majority of teachers. This, in turn, raises the question: Is there any validity to the claim that differentiated staffing will help attract capable persons to the teaching profession?

Unresolved Issues

Is the actual teaching process as important as the planning and other supportive tasks related and essential to teaching? What are or will be the criteria for judging the relative importance of the various teaching roles?

Can differentiated staffing be accomplished only by establishing a new hierarchy? Is there not a system by which different personnel assume different roles at different times? Might not horizontal rather than only vertical movement for the teacher or a plan of rotating assignments be equally effective?

Is a good teacher necessarily a good coordinating teacher or a good curriculum planner or a good learning analyst? Might not one teacher be best equipped to be the coordinating teacher in one area but perform as a regular staff teacher in another area?

Will differentiated staffing foster greater solidarity among teachers, or will specialization and differentiation be a divisive factor?

If teaching is the primary function of the teacher, and since the teacher's status is related to his degree of remuneration, can any plan be successful if it is implemented on the basis of the hierarchy described in most differentiated staffing plans?

Are the various assignments in differentiated teaching so specialized that they fall automatically into a hierarchical pattern? Cannot certain tasks conceivably be performed by certain teachers under certain conditions but by other teachers under other conditions? If one accepts the premise that each individual has both strengths and weaknesses, does a hierarchical system maximize strengths and minimize weaknesses?

Responsibilities of the Professional Associations

The professional associations have both a right and an obligation to provide leadership in bringing about changes that will make education relevant to today's society. It follows, therefore, that the associations have important responsibilities if patterns of differentiated teaching assignments for classroom teachers are to be put to a test.

Perhaps the greatest responsibility falls on the local association.

The local must--

Establish its right to negotiate for teachers on all matters, related to staffing, assignments, transfer, curriculum, and teachers' salaries, so that it is assured of involvement in the development and implementation of any program of differentiated staffing.

Be ready and willing to serve as a partner in exploring new approaches to education, including a plan of differentiated teaching assignments.

Plan and implement a program designed to alert and motivate classroom teachers to become informed, to take the initiative in educational innovation, and to be full-fledges partners in any program designed to bring about changes in the local school system, but at the same time assume that all such programs will be experimental until such time as experience validates the worth of the innovation.

The state and national education associations and the state and national associations of classroom teachers must--

Accumulate data and serve as clearinghouses for information.

Make available a variety of models of differentiated staffing and a procedure for developing salary schedules.

Recommend a framework within which state and local associations can develop specific procedures.

Provide consultative service.

Reevaluate their positions on standards of certification; salary schedules; class size; and role definitions.

Become more directly involved in programs of teacher education and preparation by conducting comprehensive surveys of present programs, by establishing criteria for evaluation of these programs, and by proposing new directions.

Identify the need for state and national legislation and initiate legislative action that seems desirable.

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CAST OFF THE BOWLINE!

Alvin P. Lierheimer

Differentiated staffing and performance assessment seem to this director of teacher education and certification to offer a chance to cast off the line that has kept the certification sloop circling its mooring for years. How disheartening it would be to tighten lines of this promising development through certification requirements and the copycat training programs that mimic those requirements in the colleges!

As schools have come to recognize the complexity and unmanageability of the traditional teaching assignment, they have developed numerous examples of variations in teaching roles. These examples, as well as logic itself, reinforce the need to identify behaviorally the roles that teachers and other personnel fulfill. But to determine whether the objectives of the differentiated roles are being met, we turn to performance assessment, a companion piece to differentiated teaching tasks. It is a necessary ingredient in the analysis of teaching roles and the demonstration of the need for both horizontal and vertical distinctions among teaching personnel.

As a school staff recognizes, defines, and fulfills differentiated roles, the students, the community, and the teachers themselves all benefit. Students profit if people specially qualified to meet their particular needs manage their learning. The community profits from a differentiation of teaching roles because new sources of talent can become available--persons with specialized aptitudes but without full preparation for teaching. School personnel gain job satisfaction in performing at a level and in a role in keeping with their desires and talents.

The very newness and flexibility implicit in the notion of differentiated staff make it imperative to permit the freest possible experimentation with the varied use of school personnel and at the same time to refine the techniques used to appraise their achievement. Both developments call for a reexamination and restatement of educational objectives.

The school and college working as a combine to prepare people to worh with children must decide first of all what, in behavioral terms, they are trying to achieve and whether or not differentiating the staff will have an effect on their goal. Once the objectives have been agreed on, schools and colleges willing and able to try new approaches should be in a position to describe the nature of a differentiated staff and the best way to prepare for its development.

At present, the education profession can see more problems than solutions on the horizon. For example, if independent study for students promotes enterprise and maturity, how do you prepare teachers to foster individualized learning? How are technological and curricular developments articulated for maximum educational benefit? What are the characteristics of a teacher who can promote learning in ghetto schools? What are alternate routes to teaching and related new careers for persons with demonstrated sensitivity and competence but without formal preparation? In light of administrative complexities and the depersonalization inherent in technology, how can persons who work with children respond more creatively to their needs and those of the world they live in?

Finding the answers for questions like these is no simple task.

In our present adolescent state, the systems analysis required for an examination of all the factors involved in reaching decisions about staffing must be on a scale small enough to be manageable. Schools, colleges, and community agencies must be encouraged to work out answers for testing possible solutions with state help. But enacting restrictive certification requirements won't provide that help.

Certification must be kept as flexible as possible in order to accommodate all persons with the ability to intervene creatively in the lives of students--to make a difference in the way students behave. Admission to a differentiated role needs to be handled at a point close to the individual being certified rather than at the state level. There should be a movement toward local decision making and self-control, with more supportive assistance from the state. This movement should include the determination of professional performance in behavioral terms, so that useful judgments can be made. Such judgments will involve teachers, administrators, and college personnel in setting up roles for staff members that permit dealing effectively with stated educational objectives.

Certification should reflect our best current understanding of the education process. As those closer to the individual are empowered to certify, licensure or certification will become, as it should, a statement to the public that a teacher can indeed lead students to learn and develop better than they would without such guidance. Such an attestation must be made by an informed person after observing the candidate teaching in a situation where the task and the objectives have been defined and the performance is evaluated in terms of predetermined goals.

The breadth and complexity of the instructional task exceed the capacity of a single individual. As the jobs to be done are systematically differentiated and made more manageable, the possibility for certificating an individual's competence to perform the task becomes more manageable and more realistic. If we succeed in adapting teacher preparation and certification to our best understanding of human character and need, the achievement will be a guarantee of vitality to the entire education enterprise.

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DIFFERENTIATED STAFFING: EXPECTATIONS AND PITFALLS

Don Barbee

Differentiated school staffing is a concept of organization that seeks to make better use of educational personnel. Teachers and other educators assume different responsibilities based on carefully prepared definitions of the many teaching functions. The differential assignment of educational personnel goes beyond traditional staff allocations based on common subject matter distinctions and grade-level arrangements and seeks new ways of analyzing essential teaching tasks and creative means for implementing new educational roles.

It is recognized that man has yet to devise a philosophical system, organizational scheme, or procedural method which is without limitations or possible deficiencies. The concept of differentiated staffing is no exception. To be aware of potential problems and to anticipate means for avoiding or minimizing them is not only realistic but very likely essential to the ultimate success of any creative effort to implement such a concept. Therefore, factors that should be considered in planning and operating a differentiated staffing program are examined in this paper.

Fadism

Prior experience has shown repeatedly that change for "fad's sake" is an unworthy alternative which ultimately detracts from bonafide professional efforts. It is important that the basic intent and characteristics of differentiated staffing be understood at the outset and implemented in fact. Occasionally, educational innovations have been adopted in name but not in practice. For example, the team-teaching concept in some instances has been endorsed in principle but not in practice. Especially has this been true where large and small groups were designed as distinct teaching units but taught as though they were the same.

The rationale for differentiated staffing is attractive, but it should not be sold as a panacea. Rather, it should be presented as a promising approach for dealing with needed changes in education. There is relatively little prior experience upon which to rely, and new ventures must be candidly considered and implemented, then given adequate opportunity for development and evaluation.

Economizing

Greater teaching efficiency, an objective of differentiated staffing, may be equated erroneously with increased economy. For instance, the use of teacher aides in lieu of professionally trained teachers may be a tempting way to sell a differentiated staffing program. Although differentiated staffing does expect to make more effective use of teaching personnel, there is no evidence to suggest that this can be achieved by decreasing expenditures.

One safeguard against financial exploitation of teacher aides is to clearly define professional and nonprofessional tasks and see that allocation and performance of assignments are consistent with the preparation, experience, and competence of the personnel. Professional staff members working with aides should share the responsibility for seeing that the aides fulfill their proper functions.

TA Syndrome

The use of teaching assistants (TA's) in colleges and universities is one illustration of the limited use of staff differentiation. The premise upon which teaching assistantships are predicated is most commendable, but questionable modifications have been made in its application. On some campuses TA's have become a major source of instructional personnel instead of serving as assistants to teachers. Similarly, in the elementary and secondary schools we occasionally find that student teachers and beginning teachers are given assignments which are not commensurate with their training and experience. Already some differentiated staffing proposals have anticipated using paraprofessionals as teacher substitutes in lieu of certified professional personnel. This problem is accentuated by the prevailing tendency for skilled instructors to move out of basic teaching situations to become involved in such ancillary activities as planning, coordinating, supervising, and directing.

It is possible, then, that by using the services of auxiliary personnel, teachers might become more remote from pupils and less involved in their problems and lives. Teachers will have to make a definite effort to avoid this pitfall. Teachers who have the help of auxiliary personnel should capitalize instead on the opportunity to work more closely with students as they take advantage of the assistance and ideas of their aides.

Status Hiatus

A differentiated staffing arrangement that incorporates a hierarchy of levels carries with it the possibility for status "discrepancies." Most administrators will recall a change of attitude experienced (in themselves and on the part of others) when moving from the role of teacher to the role of administrator. It might be described as the feeling that one is no longer a part of the same peer group, that is, "You're on the other side now." Differentiated staffing has the potential for minimizing the effects of this phenomenon, but at the same time it should be recognized that additional status levels may provide more opportunity for undesirable hierarchical distinctions to be made. Where position and title are overemphasized, where prerogatives of "office" are abused, and where respect of one's colleagues is derived from position rather than performance, professional relations will be unnecessarily encumbered and vital, everyday communication, with its essential flow of ideas, could be seriously impeded. The members of a differentiated staff who function in prime roles of responsibility have a particular obligation to minimize the distinction of rank and to help set a tone of openness, for creative ideas are not limited to categories of hierarchy.

Personality Conflicts

Differentiated staffing assumes new role definitions which will effect new interpersonal relationships and presents the possibility of personality differences. Especially will this be true in group or team arrangements. Personality differences are not so much pitfalls to be avoided as problems to be expected. Although reasonable efforts should be made to eliminate needless conflicts, it is perhaps more important to anticipate that differences will occur (even in the most compatible groups) and be prepared to cope with them as they arise. It is conceivable that educational institutions have done too much in the past to avoid differences--differences in opinion, race, sex, teaching styles--and not made enough effort to cope with apparent incompatibilities.

Solutions to conflicts that arise within or between differentiated staff groups are difficult enough to prescribe in concrete situations let alone in the abstract. It seems evident, however, that some things about conflict resolutions can be learned and that some expertise does exist. Sensitivity groups of various types have proved helpful in certain cases; psychologists who specialize in group interaction have been valuable consultants; practicing school administrators often have considerable insight for dealing with conflict that can be shared profitably with members of differentiated staffs.

Teachers have recognized in recent years that students need to be reassigned from time to time (for a variety of reasons), and it is likely that teachers may want to exercise this option more frequently for themselves when other means for resolving personality differences are unsuccessful. As a further observation, it seems essential that differentiated staffing arrangements include options for teachers to function in traditional self-contained classrooms. The concept of differentiated staffing should not be expected to provide the ultimate for every teacher.

Overspecialization

Early studies of business and industry during the scientific-management era suggested that increased specialization would contribute directly and automatically to increased productivity. The subsequent boredom and job alienation that resulted from overlooking the dynamics of human personality have only recently been partially alleviated by automation and job redefinition. Extensive differentiation of teaching staffs via job assignments which are highly definitive or specialized has the potential for restricting perspective, inhibiting individual initiative, and dampening enthusiasm for learning experiences.

The assignment of staff should not only allow but encourage members to go beyond an assigned sphere of operation. A social science specialist may be able to make important contributions to a reading program. A skilled lecturer may effectively spend time on remedial work with small groups. A kindergarten teacher may have much to offer a group of teenagers. A teacher aide may have a flair for coordinating certain staff activities. While new role definitions are vital to the differentiated staff concept, definitions should not become operational stratjackets. All members of the differentiated staff should have the opportunity to develop their individuality along lines which are beneficial to both students and staff.

Delimiting Decisions

Differentiated staffing assumes a more sophisticated delineation of teaching tasks and higher levels of performance. It is vital that the potential assets of differentiated staffing are not dissipated by needless prescriptions and lack of opportunity to contribute to decision-making processes. Again, studies in business and industry have shown that bureaucratic expansion of structure tends to narrow decision-making opportunities of workers and push decision making into higher levels of an organization. It is essential that differentiated staffing programs avoid bureaucratic tendencies and stress the unique characteristics of professionalism.

A professional organization, in contrast to an industrial bureaucracy, should function to increase the decision-making opportunities of all of its members. Staff members should be involved in those decisions that immediately or ultimately affect them. It is only logical to assume that a high level of involvement in relevant decision-making activities will significantly enhance a person's job satisfaction, productivity, and sense of self-realization.

In summary, this discussion of expectations and potential pitfalls of differentiated staffing was not meant to be comprehensive or to depreciate the proposed concept. The need for more effective educational programs is paramount, and the differentiated staffing idea represents an important, though qualified, approach to developing better teaching. It has much in common with the prevailing educational climate in which the classroom teacher is beginning to assert himself and assume a fuller role as an individual, a professional, and a member of society. Differentiated staffing, then, appears to be a viable idea that warrants exploration and testing as long as improvement in the quality of the learning situation for students remains the ultimate focal point.

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SEVERAL EDUCATORS' CURE FOR THE COMMON COLD, AMONG OTHER THINGS

or

One Unionist View of Staff Differentiation

Robert D. Bhaerman

Actually I could have called this article "LSD, Educator's Style". The "L" would have stood for Lionizing, for that is precisely what so many fellow educators have done with the concept of staff differentiation. "LSD" would have been appropriate too, since the theory currently is riding "high" in a few relatively small communities in urban America, one southern state, and on several college campuses stretching from Stanford to Massachusetts.

In spite of the rumblings which have been made in a comparatively short time, relatively little has been written on this topic. What has, however, is extremely provocative. The concept is a stimulating one, one which has a good deal going for it. Unfortunately, most differentiated staffing models create more problems than they were intended to resolve.

Some of the more positive goals of differentiated staffing are legitimate, for example:

- it provides a setting in which personnel can complement each other...and they should;
- it provides a way for teachers to learn to teach on the job...an excellent idea
- it makes possible a wider variety of career patterns...note patterns, not ladder. Incidentally, Bruce Eckman, the current president of the Association of Classroom Teachers said, "They ought to take that ladder and lay it on its side." Not a bad idea.

Differentiated staffing does not reward all qualified teachers who seek advancement.

Only a limited number of positions are available for teacher promotions. If teachers in upper levels remain in their positions, teachers below them hierarchically, no matter how interested or how qualified, cannot be promoted. The only opportunity for advancement for members of lower echelons would be to move out of the system or into administration.

Most critics of differentiated staffing believe that educational improvement must begin with less grandiose schemes and that real improvement must be based upon applying greater resources to solve the problems we are equipped to solve. It does not begin by diffusing tax money on solutions which intensify rather than eliminate existing problems.

But I will leave the main debate to others in order to concentrate on an issue which, for some reason, seems strangely missing from the past debate. I will focus attention on what I believe is the heart of the matter. The basic assumption of differentiated staffing is embodied in the statement made by several writers on this topic, namely, that there should be various levels of responsibility and that the more difficult the responsibility, the greater the compensation. The distinguishing feature in gauging responsibility and compensation would be the specialty of the teaching task. This assumption is at the root of the problem and is, no doubt, the most unacceptable thesis of differentiated staffing.

To begin, I raise this question: Who is the most important person in accomplishing a mission over Vietnam--the pilot, the navigator, or the bombardier? Without each one performing his unique role, the mission is aborted. Now these three may play a more significant role than the stewardess - if one goes along on these kinds of flights(a para-professional?), but frankly I find it impossible to judge which one carries the most difficult responsibility. In other words, we can elaborate various teacher responsibilities to our heart's content; judging their relative importance is not so easy.

Who is most important in a symphony orchestra: the first violinist; the cellist; tympanist; -- in teaching: the curriculum developer, the applier of research, or the classroom instructor; -- the pilot, the navigator, the bombardier? Herbert Spencer, on the question "What knowledge is of Most Worth?" (Education: Intellectual, Moral and Physical; London: G. Manwaring, 1861, pp. 7-9), wrote:

> Our first step must obviously be to classify, in the order of their importance, the leading kinds of activity which constitute human life. They may be naturally arranged into: 1. those activities which directly minister to self-preservation; 2. those activities which, by securing the necessaries of life, indirectly minister to self-preservation; 3. those activities which have for their end the rearing and discipline of offspring; 4. those activities which are involved in the maintenance of proper social and political relations; 5. those miscellaneous activities which fill up the leisure part of life, devoted to the gratification of the tastes and feelings.
>
> That these stand in something like their true order

of subordination, it needs no long consideration to show.

I believe it is not as simple as all that. While this is not the place for entry into a philosophic discussion of self-preservation, I quote Spencer because I feel that to determine the true order of subordination for teaching roles takes somewhat longer consideration than we have given it up to now.

John Dewey also had something to say on this topic. (John Dewey, Democracy and Education; New York: The Macmillan Company, 1916, pp. 279-280.):

> We cannot establish a hierarchy of values among studies. It is futile to attempt to arrange them in an order, beginning with one having least worth and going on to that of maximum value. Insofar as it marks a characteristic enrichment of life, its worth is intrinsic or incomparable. Since education is not a means to living, but is identical with the operation of living a life which is fruitful and inherently significant, the only ultimate value which can be set up is just the process of living itself. And this not an end to which studies and activities are subordinate means; it is the whole of which they are ingredients...

I would add this thought: the process of teaching is the whole of which there are many irreplaceable and incomparable ingredients. I believe the value scheme of a number of fellow educators--in regard to teaching, to developing curriculum, and to applying research--is really misconceived. I personally find it impossible to judge the most important among those tasks; none is of lesser or greater value than any other.

Incidentally, Ernest Bayles also had something worthwhile to say about relativistic value-theory in Democratic Educational Theory (1960), p. 103:

> If I really like and want oysters, more than anything else in the world, then indeed shall I be willing to trade anything for oysters. If and when I find something which I am not willing to trade for oysters, I have found something which I value more highly than I do oysters...There are times when oysters appear to be worth much; there are others, possibly, when we would be distressed to have them about. Thus, values are taken to be humanly determined; a function of time, place and person.

Categorizing teacher roles, like enjoying oysters, should not be regarded as a cosmic absolute. Which of three or four values outranks the others will depend on which one is the better instrument for achieving a given objective, e. g., growth of children, knowledge, and abilities.

A hierarchy cannot be established so easily for that goal.

H. H. McAshan in a paper called "Differentiated Staffing: Questions and Answers," suggested that careful study of the main ingredients of differentiated staffing should be completed prior to its adaption and implementation.

I am not certain that this has been done to any great degree. Therefore, during the late winter of 1968, I conducted a pilot study on this issue. I attempted to analyze the assumption upon which most differentiated models rest, i. e., the hierarchy concept. I took what has been described as the various roles and responsibilities of master teachers, senior teachers, staff teachers, etc., and developed the following set of directions:

> Listed below are (x) statements which describe some of the major roles and responsibilities of elementary and secondary school classroom teachers, as described in selected, current educational writings. The purpose of this short pilot instrument is to determine the relative degree of importance for each role, that is, in relation to the others. While in some cases it may be difficult to rank these statements in the order of importance, it is essential to attempt to determine your opinion regarding the level of importance which you ascribe to each task. (They should be ranked from i to (x) with i being the "most important function" and (x) being relatively "least important function", even though you may feel there is not a great degree of difference between first and last.

I did not identify the pilot study as coming from the AFT because I did not wish to inject any bias, one way or the other, into this survey. Unfortunately, this may have occurred if it were so identified. (Note #1). Four forms were developed so that I would be utilizing the exact language and categories which have been used to describe the common differentiated staffing patterns, e. g., form MS consisted of ten descriptive statements utilizing the master-senior-staff teacher hierarchy language. Form RC represented the teaching research-teaching curriculum-staff teacher hierarchy. Form BM utilized McKenna's staffing concept, and form AR utilized the four-level hierarchy resented by Allen and Ryan in the November 1966 report, "A Perspective on the Education of Teachers in California in 1980." (Note #2). The initial statistical analysis, a frequency distribution, is revealing. I call the reader's attention to the position of the staff teacher in forms MS, RC and AR, and to the clustering in form BM, which is not a hierarchical concept in and of itself as are the other models. (Note #3).

I do not make any pretense that this was only a pilot survey and I do not claim to draw any sweeping generalizations from the initial analysis. Nevertheless, two questions came to mind as a result of the investigation: (1) Are we certain that the hierarchical arrangement is both philosophically and empirically valid? (2) Have we followed McAshan's suggestion: Was careful study of the main ingredient completed prior to its adaptation and implementation--in Temple City and elsewhere--careful philosophical and careful empirical analysis?

If nothing else, perhaps this exploratory survey might provoke the kind of research which is needed before other communities commit themselves and their finances to the major restructuring of the profession. A great deal more research must be done before such a commitment is made. This is not to say that restructuring is unnecessary. I hope I have conveyed in this article the belief that concepts about teaching must be constantly scrutinized. The structure of the profession is not sacrosanct. I am merely offering the suggestion that changes in its structure should be based upon sound philosophic thinking and empirical analysis.

It is not difficult to see what the basic problem is, namely, the confusion surrounding the question, "What is a teacher?" Dwight Allen of the University of Massachusetts describes the present staffing system as "a teacher is a teacher is a teacher." He has stated that educators should recognize individual differences in teaching tasks, just as they attempt to do in students...and I certainly agree with him on this point. But, I believe the heart of the matter is not so much what you call teaching, but how you view it and, more importantly, how you treat it. That is to say, teaching will be less of a profession if we continue to treat it and support it in the substandard ways to which we have become accustomed.

Surely there must be a more realistic alternative to professionally unsound hierarchical arrangements. Such an alternative would be based on legitimate differentiation, for example, an arrangement based upon differentiated assignments and tasks on a horizontal continuum:

PROFESSIONAL TEACHERS

a media specialist	a specialist in diagnosing	a specialist in instructional techniques	a good old fashioned "generalist", a renaissance type, the kind we need more of	etc.

A teacher is not a teacher is not a teacher. Some are specialists, some are generalists; some are "facilitators of behavior development", some are "developers of talent and aptitudes", some are "identifiers of talents," some are "liberal enlighteners", and others are "technologists who administer basic skills and knowledges". But they all should be expert in their areas. And, it seems to me, that with the aid of expert supervision and in-service training, all teachers to some degree should be able to translate "theory into classroom possibilities". After all, it is the staff teacher who is in the classroom all of the time, hence, it is he who must translate theory into practice.

The question of the relationship of salaries to the hierarchical levels must be considered. It would be ideal if we had the profound wisdom to be able to distinguish teacher effectiveness-and pay accordingly. My purpose is not to spell out how evaluation of competencies can be done. Others are. I support the work of those scholars who are striving to develop more reliable and valid devices. While I am concerned, obviously, with how evaluation is done technically, I am as much conerned with when it is done, by whom it is done, and the framework and spirit in which it is done. (Incidentally, when the TEPS people say, "Evaluation is a sticky business", everyone nods their heads in agreement. When the AFT says it and tells why, all hell breaks loose.)

Nevertheless I am skeptical, for I believe we may never be able to arrive at a workable consensus on values in this realm any easier than we can in any other realm. Do we evaluate the "cognitive" effects of teachers? the "affective" effects? both? This is a terrifying problem which may never be resolved satisfactorily. The burden of proof is on the researchers who are trying to develop the sophisticated instrument for the measurement of competency. I wish them well in their efforts. But for the time being, we are left with a choice: to pay teachers according to the role they fulfill (who can judge priorities here?) or to pay teachers according to their academic and experience background (realizing the inequities which may exist here). Until we have found a workable and justifiable alternative, the salary schedule concept as we know it now is the only meaningful choice we have. If any salary schedule changes are contemplated, perhaps we should consider the benefits of one schedule for all school personnel: teachers and administrators. Who is to say which is the most significant role? Remove one brick from the base of a structure and it will collapse. Teaching is not competitive; it is a cooperative and communal effort and so it should remain. Nothing must be injected to create divisiveness.

In short, we should attack the problem at the source: if the majority of teachers are not the most able or skillful, let us get to the root of the problem by identifying, recruiting and developing the "raw material" into truly first class personnel who are able teachers. Instead, we concoct a hierarchy and create even more serious problems.

I believe that two positive prerequisites are necessary for the stabilization of the teaching profession: (1) A reinforcement of the attitude which I learned in my first education course - that teaching is cooperative and fraternal effort, one which calls for solidarity among teachers. While teachers may perform different roles their unified force should be directed toward improving the status of children's learning and of the profession's well-being. (2) A demonstration of courage on the part of both teachers and administrators to encounter the divisiveness evident in vertical certification and vertical differentiation plans.

I reject those vertical plans and offer in their place the following plan of my own to complement the two attitudinal requirements stated above:

(1) A teacher certification arrangement in which the state would require superior college-level preparation for certification, provide for expert supervision of beginning teachers for a period of at least three years, and then remove itself from further certification activity. In turn, local school systems would provide the stimulus, where needed, to encourage teachers to continue their education for improved competence. Presently, in many states teachers must secure additional college credit in order to continue the initial teaching certificate in force or to make it "permanent". This practice involves a type of coercion that does not lead to professional responsibility. The stamina and the dedication to complete three or four years of successful teaching, plus the optimum collegiate preparation necessary for regular initial certification, should be sufficient grounds for extending a certificate. The concept of certification as a dual-step process with continuing certification granted after a three-or four-year probationary period would not lead to the divisiveness of the multi-level certification scheme.

(2) An inservice education arrangement in which specialization can be obtained by those who wish it and continued professional growth can be achieved by all. However, inservice approaches must not be more of the same old things. They must be meaningful and significant and, to as complete a degree as possible, they must be personalized and indivualized. It is trite to say that teachers must be continuously alert to the many new insights into educational theory, the learning process and instructional technology. Teachers obviously must never stop growing or they are dead. A way must be found to assure this growth. The question is not whether they do or whether they do not. It is: What is the fairest, most mature, and most professional way to insure professional growth. Obsolescence of skills can be overcome without the restrictions imposed by rigid certification levels and forced renewal.

I believe an alternative to hierarchical staffing exists; I choose to call it the Continuous Progress Alternative. Let me explain why.

One of the most meaningful statements dealing with individual differences introduced the widely read book, The Non-Graded Elementary School, by Goodlad and Anderson.

> Greek mythology tells us of the cruel robber, Procrustes (the stretcher). When travelers sought his house for shelter, they were tied onto an iron bedstead. If the traveler was shorter than the bed, Procrustes stretched him out until he was the same length as the bed. If he was longer, his limbs were chopped off to make him fit. Procrustes

> shaped both short and tall until they were equally
> long and equally dead.

If personalized and individualized education makes sense for students, the same principles should apply to teachers. If independent study has proven valuable for students--and it has--it also should have value for teachers. Total self-development for all teachers in significant inservice programs is the alternative. Among other things, these programs must include contractual arrangements for travel, books, and materials for teachers, and structured and unstructured workshops and institutes in which teachers would come to know such meaningful concepts as interaction analysis, inquiry training, sensitivity training and the like. In other words, we must develop teacher talent - as we do student talent - not just "grade" it.

The alternative is based upon the idea of self-development, with teachers diagnosing their own needs and establishing their own self-growth programs, the basis of which, quite logically, would be self-evaluation. Teachers would assess their own strengths and weaknesses and establish their own self-improvement programs in a truly professional way.

I can accept evaluation of competencies, if by this one means self-evaluation. I can accept the idea of a horizontally differentiated staff, if we can be certain that no discrimination exists, financial or otherwise. I can accept the challenge to overcome obsolescence of teaching skills, but we must do this in the most professional way. To date, the concept of continuous progress has been applied to public school children, but not as an alternative for public school teachers.

Serious dilemmas call for far-reaching solutions, and I do not believe these goals are impractical. Granted, they call for a great amount of self-discipline and maturity on the part of teachers and administrators, but I think it can be done. Meaningful inservice education should be the alternative to the hierarchical ladder. Teachers would remain in the profession, and would be career teachers in the finest sense of the word, if they were provided with programs of self-growth which significant on-the-job training could provide. This is a public trust.

Let me illustrate further: When I was a teacher education advisor in Pennsylvania, one of my chief responsibilities was to analyze programs under the approved program approach. In some cases, the Bureau of Teacher Education suggested (gently) that certain programs gradually be phased out. It may sound surprising, but the Department of Public Instruction never mandated that a program be dropped. The approach for dropping programs was through mutual agreement between the parties. When the college came to realize that a satisfactory job was not being done in a specific program, it would be dropped. Mutually it was agreed that colleges would develop only those programs for which they were reasonably strong. I view this as being analogous to the problems of staffing.

To illustrate: Utilizing self-evaluation devices, teachers would build their own self-development programs by identifying their own strengths and weaknesses. If a certain weakness was glaring, the teacher would agree not to teach in that area. For example, a history teacher may be very weak in European history; he should teach solely in the area of his strength, let us say American history, until the weakness could be corrected. Realizing this, he would set up a self-study program in which he would develop the knowledge to teach European history. A few teachers might be asked to leave the profession, but that decision would be mutually arrived at. It is my sincere belief, however, that not that many teachers will be found so lacking that they could not work effectively in some area. If one cannot work with children at a particular age level, perhaps he can do better at another level. If one cannot instruct well, perhaps he can diagnose well. Rather than be dropped down the certification ladder, or dropped entirely, his career goals should be mutually redirected.

I am reminded of a doctor whom I know who simply could not relate to his patient. He had no bedside manner. He came to realize this himself and, hence, spent additional time in his own training in order to specialize as a radiologist. While he could not relate to patients, he could relate to X-rays. Do not misunderstand: I am not suggesting that we protect the incompetent. I am suggesting that teachers be treated as human beings who can learn, grow, and change in their chosen career. The important thing is that teachers be selected and recruited in ways which provide as much as possible that the clearly incompetent person would not be allowed to teach in the first place. Selection and recruitment, too, are part of the Continuous Progress Alternative.

This alternative is built upon the idea of the professionalism of teachers. It is built upon the concept that, although teachers may be performing different activities, they must be considered and must consider themselves as teachers, whether they are program developers or program implementers. We talk glibly about stressing cooperation among students. Here is an opportunity to practice what we preach by stressing the same among teachers.

Sarah Lawrence College, for one, has shown that academic ranks at the college level need not be identified or get in the way of a professor's work. This, too, is true, I feel for public school teachers. Each teacher, no matter what else some people may call him, is performing a vital and irreplaceable part of a broad scheme, namely, he provides for children's learning. On one hand we must depart from the view of a teacher as an isolated unit, but, on the other hand, we must not conceive of teachers as lesser beings for not being higher up the ladder.

To summarize the Continuous Progress Alternative means:

- meaningful inservice programs contractually provided for;
- personalized and individualized inservice education;
- independent study;
- travel;
- purchase of professional books and materials;
- meaningful workshops and institutes;
- regularly established sabbaticals;
- research into instructional problems;
- staff-development laboratories for alalyzing and solving instructional problems;
- self-development;
- self-evaluation;
- self-improvement;
- mutual agreement on teaching assignment;
- mutual agreement on the direction of self-development programs;
- renewed concentration on selection;
- renewed concentration on recruitment;
- cooperation among teachers;
- teachers and teaching as part of a coordinated effort.

Many approaches are needed to resolve the problems of teacher dropout and provision of career incentives. Hierarchical plans of certification and staffing offer a thesis. We reject the divisiveness to which they lead. Instead we must fashion a synthesis, a comprehensive program of meaningful preservice and inservice education--within the framework of certification justice for all teachers. The differentiated staffing concept is too simple a solution for the many complex problems of teacher selection, recruitment, retention, teacher education and certification. Yet, it promises to do just about everything except cure the common cold. Frankly, I think we can do better, not by focusing on one narrow organizational pattern, but by attacking on many fronts the many problems which face us. What we can do to resolve some of these problems is only restricted by the limits of our imagination. The hierarchy concept is an imaginative idea. But I doubt if it is the last word or the best.

NOTES:

(#1) Participants in The Pilot Survey: (146 total)

a. Elementary School Teachers (74)
Secondary School Teachers (52)
College Professors (13)
Administrators (7)

b. Age: 20 - 29 (70)
30 - 44 (47)
45 - 65 (20)
65 - over (1)

c. Male (58)
Female (75)

d. Members of professional organizations:

NEA	(86)
AFT	(3)
AASA	(4)
Others	(misc.)

e. Type of Community

rural	(22)
suburban	(10)
urban	(50)

(#2) Descriptive Items on Differentiated Staff Roles:

Teaching Research Associates:

brings constant flow of ideas emanating from research centers, universities, etc.; introduces new concepts and ideas into the school.

establishes and maintains a continual program of research and evaluation in the areas of curriculum development and new methodologies.

works in developing curriculum which incorporates the latest research.

Teaching Curriculum Associates:

modifies national curriculum studies to meet local needs and local teacher proclivities.

develops new curriculum material which might become part of a district's educational program.

Staff Teacher:

plans daily for groups, meets individual needs, keeps classroom control, maintains pupil rapport, selects and organizes materials, and confers with pupils and parents.

translates curriculum units and goals into highly teachable lesson plans and is responsible for carrying out these plans.

puts educational innovations into effect in the classroom and subjects them to the modifications which arise from day to day experience.

Master Teacher:

applies promising research-tested ideas to improve the school.

feeds into the school a steady flow of relevant new practices and curriculum content to keep the school abreast of the times,

shapes the curriculum, researches new instructional techniques, and investigates new modes of learning.

initiates research programs of a purely district interest among his colleagues.

Senior Teacher:

makes the concepts and goals of the curriculum explicit for a given course or grade level.

evaluates critically pertinent research and from it selects those ideas, practices, and principles that will contribute to the development of new methods and new programs.

diagnoses learning problems and specializes in the relation of new teaching strategies to needs of the learner.

McKenna's Model:

Teacher Technologist: Skill in administering basic skills and knowledges.

Liberal Enlightener: Skill as a master presenter.

Identifier of Talents: Skill in promoting exploration in broad fields.

Developer of Talents and Aptitudes: A skill for developing talent.

Facilitator of Attitude and Interpersonal Behavior Development: human relations attitudes and skills.

Allen and Ryan's Model (1966):

Curriculum associate-anticipator: Shapes curriculum. Gives direction to what curriculum should be in the future and how subjects should be related to each other.

Senior Teacher-conceptualizer: Makes explicit the concepts and goals in each course or grade level.

Staff Teacher-illustrator: Translates units and goals into highly teachable lesson plans.

Associate Teacher-doer: Carries out the given plans.

(#3)

Tabulation of Results of the Pilot Survey on Teacher Roles (frequency distributions):

FORM MS

	Master Teacher	Senior Teacher	Staff Teacher
1 -	2	6	25
2 -	5	10	18
3 -	9	9	15
4 -	7	14	12
5 -	10	11	10
6 -	16	14	3
7 -	12	11	10
8 -	18	13	3
9 -	23	8	3
10 -	30	3	0
average	7.15	5.36	3.44

	Teaching Research Associate	Teaching Curriculum Associate	Staff Teacher
1 -	6	0	27
2 -	8	1	24
3 -	14	4	15
4 -	14	11	8
5 -	16	11	6
6 -	14	12	7
7 -	18	7	8
8 -	9	20	4
average	4.89	5.97	3.05

FORM AR

	Curriculum Associate	Senior Teacher	Staff Teacher	Associate Teacher
1 -	11	13	6	6
2 -	7	12	12	5
3 -	5	9	14	8
4 -	13	2	4	17
average	2.56	2.00	2.44	3.00

FORM BM

	Facilitator of Attitudes	Developer of Talent	Identifier of Talent	Liberal Enlightener	Teacher Technologist
1 -	7	3	9	16	3
2 -	5	11	7	6	9
3 -	12	6	8	5	7
4 -	6	9	9	3	11
5 -	8	9	5	8	8
average	3.08	3.26	2.84	2.50	3.26

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STRATEGIES FOR TEACHER DEPLOYMENT TAKE SHAPE

DIFFERENTIATED STAFFING

For educational trend watchers, the blue-ribbon candidate of the 70s has arrived. Its name is Differentiated Staffing and it is being carefully fed, watched and nurtured in an almost clinical environment.

What is differentiated staffing? There is no precise definition, but it implies a restructuring and redeployment of teaching personnel in a way that makes optimum use of their talents, interests, and commitments, and affords them greater autonomy in determining their own professional development. A fully differentiated staff includes classroom teachers at various responsibility levels and pay--assigned on the basis of training, competence, educational goals and difficulty of task--subject specialists, special service personnel, administrative and/or curriculum development personnel (who may also teach a percentage of the time) and a greater number of subprofessionals and nonprofessionals, such as teaching interns and teacher aides.

Differentiated staffing theorists assume three crucial benefits: (1) teachers will have opportunities to pull themselves up a career ladder; (2) the good teachers can remain in the classroom instead of being "kicked upstairs" into administration when a promotion is in order; (3) all students will benefit from the new organization because there will be more individualization of instruction.

Hard-line opponents see it as a grandiose subterfuge for implementing merit pay, encouraging faculty separation and divisiveness.

The answer to the merit pay objection, according to proponents, is that, under differentiated staffing, teachers are paid differently for different responsibilities, as opposed to traditional merit pay setups, where people are paid differently because they are judged to be performing similar tasks at different quality levels.

Where it started: One of the earliest differentiated staffing models was developed by Dr. Dwight Allen, dean of the University of Massachusetts' School of Education. It was presented to the California Board of Education in 1966 and first introduced in Temple City, California.

The Temple City program represents a stairstep, or hierarchical model.

Starting at the top and going down are master teachers, senior teachers, staff teachers, associate teachers, and three types of paraprofessionals--teacher aides, resource center assistants, and lab assistants. Responsibilities and salaries for these positions are varied, though the staff teacher and associate teacher are tenured.

Here is how the four basic positions at Temple City break down:

- Associate Teacher--typically, a beginning teacher who spends most of his time in the classroom while simultaneously evaluating his performance in conferences with a supervisor.

- Staff Teacher--has more experience and is assigned more difficult responsibilities, including tutorial sessions and small group instruction. Additionally he works on new curriculums and supervises their field testing.

- Senior Teacher--in addition to teaching, consults with associate teachers, develops new teaching strategies, sets up inservice training programs, and develops resource banks for new instructional units, including the use of media.

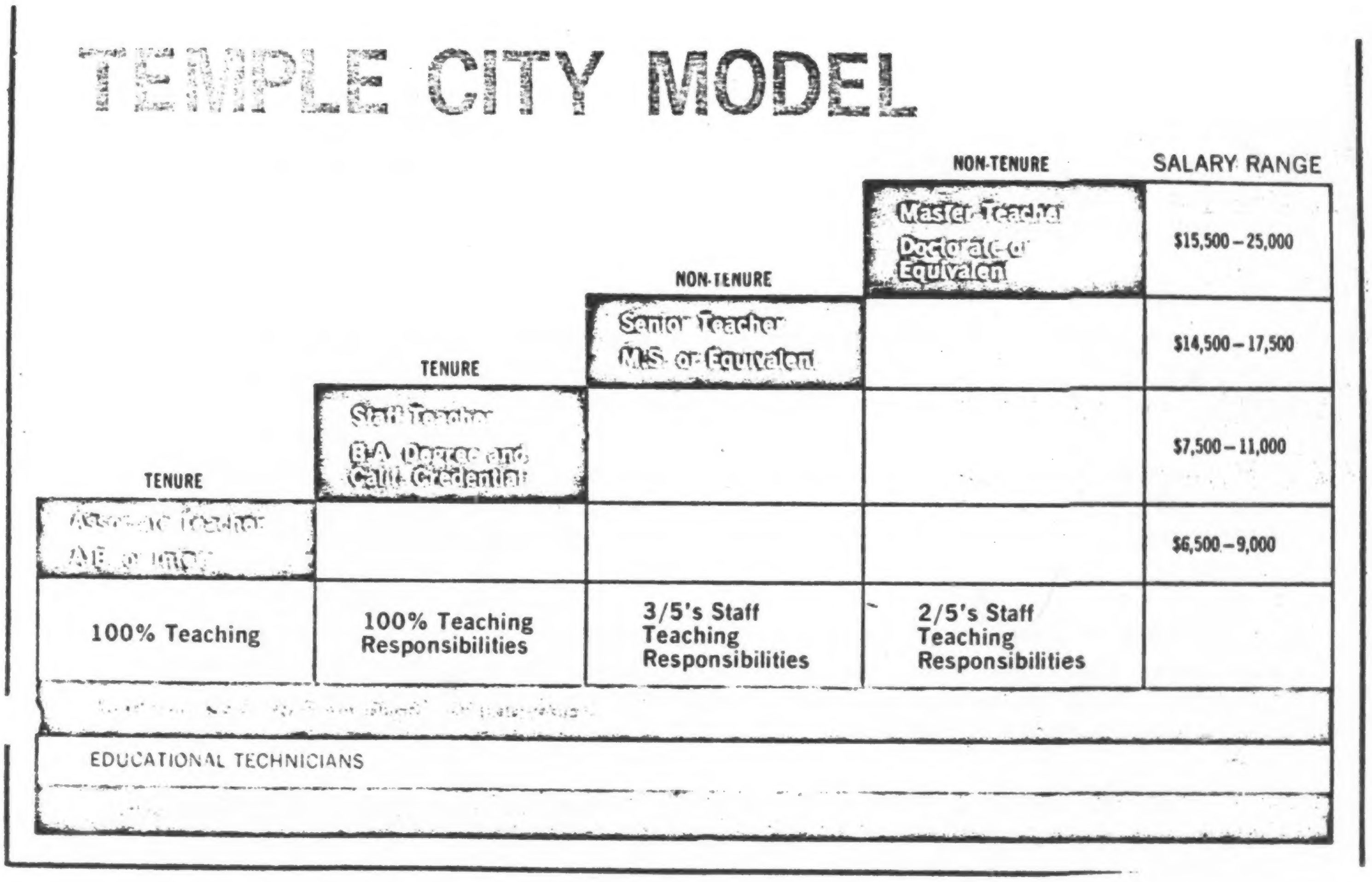
- Master Teacher--has districtwide responsibilities in the application of research to curriculum design. Teaches at least a part of the time.

Two other early models are noteworthy. One a hierarchical arrangement developed by Lloyd J. Trump, provided for teaching specialists, staff specialists, a number of general aides, and community consultants where needed. The other, the Head Start model (which evolved from the federal program of the same name), was a "flatter" model that had only two basic levels--a "lead" teacher without real authority and assistant teachers who composed the bulk of the team. The "lead" teacher received extra remuneration.

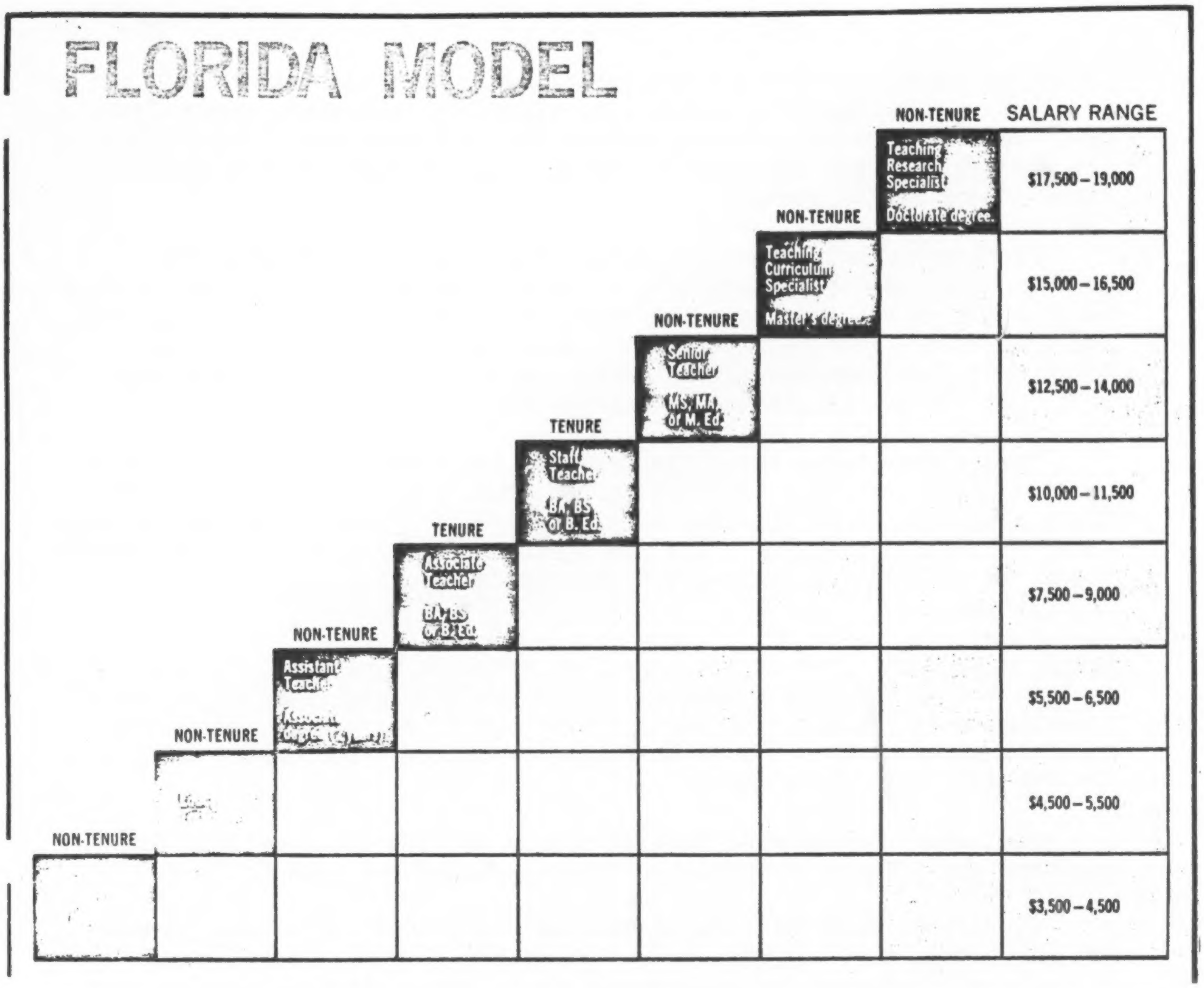
A major impetus for differentiated staffing appeared with passage of the Education Professions Development Act of 1967, which set aside federal funds for such experimentation.

One of the first districts to apply for EPDA money was Beaverton, Oregon, now completing its first year of differentiated staffing at a 975-student high school. For next year, the district has applied for funds to implement the program at the high school, a junior high, and an elementary school. One new position developed in the Beaverton program is the "domain chairman" who supervises development of interdisciplinary curriculum and provides leadership in teaching processes.

The Florida project: Unquestionably, the most extensive proposal for differentiated staffing is found in Florida, where in 1968, the state legislature provided a mandate requestion the state department of education to "develop and operate model projects of flexible staff organization in selected elementary and secondary schools based on differentiated


TEMPLE CITY MODEL
NON-TENURE
SALARY RANGE
Master Teacher
Doctorate or Equivalent
$15,500 – 25,000
NON-TENURE
Senior Teacher
M.S. or Equivalent
$14,500 – 17,500
TENURE
Staff Teacher
B.A. Degree and Calif. Credential
$7,500 – 11,000
TENURE
Associate Teacher
A.B. or [illegible]
$6,500 – 9,000
100% Teaching
100% Teaching Responsibilities
3/5's Staff Teaching Responsibilities
2/5's Staff Teaching Responsibilities
EDUCATIONAL TECHNICIANS

A four-level teacher hierarchy is the basis for the differentiated staffing model being used at Temple City, California. The associate teacher, a novice, has a "learning schedule" and less demanding responsibilities; the staff teacher has a full teaching load and is aided by paraprofessionals; the senior teacher is a "learning engineer," or methodological expert in a subject; the master teacher is a scholar-research specialist who translates research theory into classroom possibilities.


FLORIDA MODEL
NON-TENURE
SALARY RANGE
Teaching Research Specialist
Doctorate degree.
$17,500 – 19,000
NON-TENURE
Teaching Curriculum Specialist
Master's degree
$15,000 – 16,500
NON-TENURE
Senior Teacher
MS, MA, or M. Ed.
$12,500 – 14,000
TENURE
Staff Teacher
BA, BS or B. Ed.
$10,000 – 11,500
TENURE
Associate Teacher
BA, BS or B. Ed.
$7,500 – 9,000
NON-TENURE
Assistant Teacher
$5,500 – 6,500
NON-TENURE
$4,500 – 5,500
NON-TENURE
$3,500 – 4,500

This is the differentiated staffing model and salary schedule developed in Florida. The first break into research responsibility comes at the senior teacher level, though the senior teacher will still spend four-fifths of his time in the classroom. Personnel at the two highest level positions will teach about three-fifths of the time. Within the salary schedules, each position from associate teacher on up has a range of $1,500, divided into three yearly increments of $500 each. The lower positions have a range of $1,000, for division into four yearly increments of $250 each.

levels of responsibility and compensation for services performed." As a result, a comprehensive feasibility study was completed, along with a plan that included role clarifications and cost analyses. Pilot projects are now set to begin this fall in three Counties--Dade (which includes Miami), Leon and Sarasota.

The Florida model has more levels than the one at Temple City. Starting from the top, there are: a teaching research specialist (equivalent to the principal), teaching curriculum specialists, senior teachers, staff teachers, associate teachers, assistant teachers, educational technicians, and teacher aides. Each position has a different salary range and certain educational requirements.

Though many local districts have certain aspects of differentiated staffing (team teaching, flexible scheduling, etc.) already built into their programs, it is reported that a substantial number are now considering full-blown programs. And the states of Wisconsin and Massachusetts appear to be boosting the concept through changes in state certification regulations.

Teacher reaction: How do teachers feel about such proposals? The Association of Classroom Teachers, which has endorsed research on differentiated staffing, conducted a conference of representative teachers from all parts of the country to compile opinions. Conference participants cited these advantages:

- The concept appears to provide a more meaningful educational experience and climate favorable to the development of each child.

- It fosters good teaching techniques. such as flexible assignments, modular scheduling, matching of instructional resources with learner needs, individualized learning experiences, and a clinical approach to meet student needs.

- It provides for more effective use of human resources.

- The opportunity is there for interaction among teachers, administrators, teacher aides, parents, and the community.

On the other hand, they also foresaw some obstacles:

- A tendency on the part of some persons to move too quickly. The roles of administrators must change at the same pace as the roles of the classroom teachers.

- Insufficient funds for an adequate program.

- Personnel not prepared to operate within the new framework.

- The tendency to bill differentiated staffing as a cure-all for educational ills.

- A fear that assignments will be used as a means to cut school budgets by paying higher salaries to a few teachers who reach top brackets and lower salaries to the vast majority.

- Inadequate public relations and biased information programs.

It was admitted, however, that all these "obstacles" can be overcome by judicious planning.

One essential element cited, ironically, as an advantage by proponents and a disadvantage by critics is that teachers are generally evaluated for higher positions by committees composed of their own colleagues. This is fairer, say those in favor. It encourages conflict among the faculty, say those opposed. The proof of the pudding, whatever it is, has to be in the eating.

Additional points advocated for differentiated staffing are that it allows retention of good teachers while offering incentive for advancement; it offers the prospect of salaries equal to or greater than administrators at the higher stratification levels; it reduces the administrator-teacher gap considerably; it adds prestige to teaching; and it involves teachers more heavily in decision-making and planning.

Some have likened differentiated staffing in schools to the application of systems management techniques used in industry. Others point out that it is only a natural evolvement in improving the quality of education. But its first champion, Dr. Allen, sees a simple goal: to compensate professional teachers at the same levels as other professional persons in a community. He says: "That goal is possible with differentiated staffing."

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A. The Teacher and His Staff

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THE TEACHER AND HIS STAFF
An NEA Report

Roy A. Edelfelt

The idea that several professionals and paraprofessionals will work together in teaching youngsters promises a significant breakthrough for improving the quality of elementary and secondary education. It also heralds a revolution in the role of the teacher and in present concepts of the teaching profession. It is timely that we seek breakthroughs and revolution in education.

The job of the teacher has become unmanageable. The self-contained teacher and the self-contained classroom and the self-contained school are obsolete. No single individual has the competence, energy, and time to deal effectively with all the responsibilities assigned to one teacher. No teacher can afford to operate in the isolated and insulated fashion which has characterized many self-contained classrooms. No school can remain vital and dynamic or up to date if its staff is out of touch with the community and the rest of the educational world. A progressive, affluent society cannot tolerate or afford teachers or schools which try to go it alone without the help and stimulation of colleagues.

As the demands of modern life have increased, as school curricula have expanded, as instructional techniques have become more complicated, as services offered by schools have been extended, teachers and other school personnel have found the traditional concept of teaching more and more unrealistic. Add to this the problems of a rapidly growing school population and it is obvious that moving fast enough or far enough in education to keep pace with other developments in society is almost impossible.

The teacher who must remain alert to developments in his academic field, keep up on innovations in teaching procedures, advise and consult with extracurricular groups, conduct a homeroom, read and evaluate student work, monitor lunchrooms, collect money or sell tickets for school events, consult with guidance and personnel staff, work on curriculum committees, chaperon school functions, confer with students and parents, attend teachers meetings, participate in professional association and learned society activities, advise school clubs, supervise student teachers, and keep attendance and academic records while teaching for a full day does not have time to do any of his jobs well.

It is time to break with the past even though some will cry heresy.

It is time to experiment and investigate new ways to utilize staff in schools. New concepts of teacher roles need not sacrifice the important elements of good education. There is no need, for example, to abandon the notion that teachers should work closely enough with students so that they know them well. Actually, differentiated roles for education personnel must be considered first in terms of value to the learner. This criterion alone makes obvious the unmanageableness of the teacher's task in today's school.

Because of the lack of time and energy to dream up new and effective strategies for teaching, to find appropriate materials, to check the success of instruction, to get to know students, to keep in touch with parents and the community, and to evaluate the effectiveness of curriculum, teaching often becomes dull and unexciting. Under such circumstances, teachers tend to follow the same course of study and pursue the same teaching techniques year in and year out. They turn into robots, and their approaches to teaching become shopworn and routine.

There has been little research on teacher fatigue, but most educators can testify that there comes a time in the new teacher's experience when enthusiasm is dulled and energy sapped from trying to do all the jobs in the school day. The teacher who survives slacks off; he paces himself to get through a whole day in the elementary school or through five class periods in the high school.

Parents with only a few children can identify with teachers by recalling a rainy day at home or the fatigue of late August days when summer vacations seem too long. Many of them admit to being "driven up the wall" by too close and too long association with their few children. What, then, is the plight of the teacher who faces at least twenty-five children almost constantly for 180 days a year? Obviously, when teacher fatigue is studied more closely, there will be additional evidence to support a reorganization of teacher load and a new look at the roles and responsibilities which teachers can manage effectively.

We have no choice but to re-examine the roles of teachers. Federal programs, new technology, the introduction of more interns and aides into the schools, new money, and more public support for education are additional reasons why action is needed now.

The examination of teacher roles should take into consideration the school both as it is and as it might become. There is evidence, for example, that the whole concept of the school is changing. It has, in fact, already changed in its commitment--from a major emphasis on intellectual pursuits and character building to an emphasis on a full range of educational services. In schools which become education centers, these services will be expanded to run the gamut from child care, health services, recreational guidance, and work-study programs to sophisticated, scholarly activity. We can predict with surety that:

1. The education center will attend to a much broader range of the growth and learning of its enrollees.

2. The recognition that there is more to learn than can possibly be managed in school will cause re-evaluation and reformation in curriculum.

3. The realization that knowledge can become obsolete will influence the emphasis and value placed on what is learned.

4. The use and scheduling of time will be different--more diverse and more flexible.

5. The isolated, one-adult classroom will pass out of existence.

6. There will be more collaboration between and among teachers and a clearer recognition that teaching--in fact, the whole school program--must be more of a team effort.

Changing or differentiating the role of the teacher and of other education personnel will require a mammoth effort. Traditional ways of doing things are difficult to change because teachers, like other people, find security in established roles and routines. Changing and expanding the traditional concept of one teacher ministering to all children to a system which involves a cooperative effort by teachers, teacher aides, consultants, and other support personnel is the central focus of "The Teacher and His Staff" concept.

Teachers recognize the need for more help. They understand that a modern school program must be extended beyond the "egg-crate" concept of the isolated teacher in the classroom. They know that better educational programs can be developed by appropriate collaboration of a variety of experts and generalists. For example, there is no question that the classroom teacher can operate more effectively when there is a sensitive, skilled supervisor to provide constructive consultant help in a subject matter field or in guidance or psychological services, or that the teacher can do a better job when he can plan and teach with another teacher who is a respected, empathic colleague.

In addition to providing the plan and personnel for making the teacher's job more manageable, there must also be attention to school climate. The climate must be open, objective, and supportive if teachers are to operate effectively. A proper climate should guarantee the teachers full partnership in the educational enterprise. Teachers must be given the right and responsibility of a part in the decisions which alter their roles and which establish plans for inservice training to prepare them for such roles.

Despite intellectual agreement about needed help and the present opportunity to change existing conditions, there is fear and uncertainty. What new roles should teachers take? To what extent can these roles be differentiated? How can teachers be assigned to the roles for which they are best suited? Can teachers work together? How will it be to work with another professional or paraprofessional in the classroom? Will teacher aides be able to take over non-teaching jobs? To what extent will auxiliary personnel infringe on the professional domain of teachers? Should auxiliary personnel assume some professional duties under the supervision of the teacher? What help can consultants and administrators provide? Will help and consultation by subordinates be possible without domination? How will the efforts of all these people be coordinated? Who will be in charge of managing instruction? With so many people involved, will there be too many intangibles? Will the climate for an objective approach to redefining roles for teachers be possible? In all this change, what is the responsibility of teachers, administrators, professional associations, school boards, laymen, state departments of education?

These are some of the questions which must be faced when we look at the concept of the teacher and his staff. Exactly how they are answered I cannot say because I don't know. I do know that procedures and arrangements in schools will differ. Answers will depend on the purposes of education as determined broadly by local boards of education and more specifically by school faculties. They will depend on the personnel available to assume the tasks which must be done.

We have at least two prototypes for the organization of the teacher and his staff which have had wide exposure. J. Lloyd Trump, in his pamphlet entitled Images of the Future, sets forth one plan. The Head Start program illustrates another. I find neither one of them completely acceptable or appropriate for the elementary or secondary school. The Trump model is not acceptable in my view because of its primary assumption that the main purpose of the school is to dispense subject matter and because the emphasis in his staff organization is more a hierarchy than a colleague relationship. Trump also seems overly prescriptive in suggesting that all organization revolves around three plans--large group instruction, small group seminars, and independent study. The Head Start model is not apropos because its emphasis is a hothouse treatment for disadvantaged children and the concern is only for preschool youngsters. The Trump model overemphasizes subject matter and academic aspects of the school program; the Head Start model (of necessity) underemphasizes scholarly and academic concerns.

Having raised some questions about the Head Start and Trump models of the teacher and his staff, I hasten to admit that there is much to learn from both and much which could be adopted. One of the main virtues of both models is that more than one adult is available to plan programs and to help youngsters in the classroom. A second strength is the provision for greater variety in the school program. Both models provide alternatives to a teacher-dominated, teacher-to-class approach to teaching. A third feature of note in both the Head Start and Trump models is the differentiation of roles for a variety of school personnel. Teachers are assigned tasks which are clearly professional. Other personnel perform supporting functions in an organization which is planned and which is deliberately a part of the total concept of the school program.

The Head Start model clearly reduces the student-teacher ratio to 15:1, while the Trump model recommends one professional teacher for each forty students. Both programs recognize the importance of a planned relationship between community life and school program.

As we consider "The Teacher and His Staff" concept, it is helpful to consider the models of Trump and Head Start. But we must go further than either of these plans because other new ideas have become apparent as we have examined the inservice education of teachers.

The models I should like to suggest for your consideration are based on some assumptions or a frame of reference. Some have already been stated, and some I have not mentioned. The assumptions I have talked about include the following:

1. The job of the teacher has become unmanageable.

2. A teacher can survive in schools today if he paces himself at a less than adequate level of professional performance.

3. A professional job of teaching requires time to plan, analyze, and evaluate teaching.

4. New concepts of teacher roles need not sacrifice the important elements of good teaching or good educational practice.

5. There is support in money, technology, and public attitude for re-examination of teacher roles.

6. The changing concept of the school requires different roles for teachers and other education personnel.

7. Changing the role of the teacher and other education personnel will require a mammoth effort; traditional ways of doing things are difficult to discard.

8. Change is easier when working relationships and climate are open, objective, and supportive. The teacher must have a full partnership in the educational enterprise.

9. There are many unresolved questions on a variety of ideas about what modifying the roles of teachers will involve. Most of these questions should remain open until there is more evidence from experience with new roles.

The assumptions I have not stated are:

1. A variety of people and talents are needed to staff schools adequately.

2. Prospective teachers and inservice teachers at various stages of professional development can contribute in different ways to school programs.

3. The role of the teacher should depend on competence, experience, attitude, and desire.

4. Responsibility, competence, status, and reward should be related, that is, a teacher should have one of these in terms of the degree to which he has the others.

5. There should be a visible career pattern in teaching which makes remaining in the classroom rewarding to those who want to stay in teaching.

6. A career in teaching should offer enough variety in assignment to provide stimulation and new experiences throughout a teacher's tenure.

7. There should be more than one adult working with a group of youngsters. This arrangement provides both professional stimulation and perspective and more attention to each youngster.

8. Subprofessional teacher aides can perform paraprofessional tasks under the supervision of a certified teacher.

9. The use of a staff approach to teaching should decrease the student-teacher ratio, not increase it.

My thinking to date assumes "The Teacher and His Staff" idea will provide that a teacher have several helpers in performing his job of teaching. It seems to me that the teacher with a staff will be a mature professional, what we have referred to in previous conferences as a career teacher. Career teacher designation should be based primarily on competence in terms of performance, responsibility, and commitment. Career teacher status will also require competence as the manager or administrator of a staff. The makeup of a teacher's staff will depend on teaching responsibility and assignment.

Supposing that "The Teacher and His Staff" idea is initiated in a school with class organization and assignment pretty much what it is now. What might the set-up look like? Two hypothetical illustrations might serve to clarify some possibilities.

Miss Jones teaches first grade. It has been her custom to group children in reading and arithmetic. A constant frustration for Miss Jones has been finding worthwhile activities for children other than those with whom she is working directly. We will assume that Miss Jones is adjudged a mature professional, a career teacher in her school, and that she is part of a pilot program built on "The Teacher and His Staff" idea.

With the help of colleagues, administrators, and support personnel, Miss Jones works out a plan to remedy, among other things, her problems in reading and arithmetic instruction. She has a part in selecting an intern and in selecting and training a teacher aide. Both will spend most of their time with Miss Jones. She needs and gets help in re-orienting herself to working with two other adults in the classroom. She studies and consults with supervisors and college consultants to learn more about her job as a supervisor. There is planning, trial, analysis, and assessment of the pilot, which includes several teachers and college and supervisory personnel.

Mr. Smith teaches chemistry in the high school. His assignment includes five classes in chemistry. He has one free period for planning. From his first year of teaching he has been concerned about getting equipment set up and taking it down, keeping the chemistry lab clean, and maintaining order in equipment and supplies. He has also been dissatisfied with his approach of keeping his five classes together, teaching essentially the same lesson five times in one day. Periods seem too short for experiments. Too often students do only cookbook experiments because there isn't time to plan with each class or each student.

We will assume, also, that Mr. Smith is designated a mature professional, a career teacher, and that he becomes a part of a trial of "The Teacher and His Staff" idea. Mr. Smith also gets considerable consultant help from colleagues, supervisors, specialists in chemistry, and other college personnel. He works out a plan which involves flexibility in scheduling as well as additional personnel. Flexibility in scheduling becomes possible because one of Mr. Smith's colleagues, an English teacher, is initiating a similar program and it is possible to dovetail schedules to provide both teachers with double periods on some days in the week. Mr. Smith discovers a housewife in the community with a master's degree in chemistry who wants part-time work. He also takes on an intern (full-time - and a high school senior (part-time), the latter a student who has shown promise in chemistry. Mr. Smith arranges a schedule which provides two double-period lab sessions twice a week. He trains the housewife as a lab assistant and give her increasing responsibility in lab periods for working with individuals and groups on experiments. The intern works in a similar capacity but also does some teaching. All three work together in planning, analysis, and assessment of instruction. The high school student becomes the keeper of supplies and equipment, but gradually he also learns to assist students on individual projects under the supervision of the teacher. Mr. Smith's school owns a videotape recorder and playback equipment. He and his assistants use this equipment to record demonstrations which need close-up viewing. This system also eliminates repetition of a demonstration which is appropriate for all of his classes.

Both Miss Jones and Mr. Smith learn such things as how better to plan their day, what jobs they can assign to the intern and the teacher aide, how to keep contact with all the children while sharing them with two other adults, how to deal with the change in ego satisfaction derived from teaching, what diagnosis and planning they can share with their team and what they must take responsibility for, and how to evaluate what is going on.

These illustrations are inadequate in detail, but they do help to clarify some possibilities. I am sure you all can think of other more exciting and innovative possibilities, and I hope you will.

There is no doubt that putting "The Teacher and His Staff" idea into practice will be more expensive than present staffing procedures. It will, I believe, provide opportunities for some radical improvement in instruction. It will also make a substantial difference to the teaching profession. It should help attract and keep talented people in the classroom. It should help establish a core of career teachers, mature professionals, senior teachers--whatever you choose to call them--who will make teaching a mature profession. It will help make at least one career pattern clear.

Source: "A Readiness for Differentiated Staffing," Information Report, No. 3, November, 1969. Reprinted with permission from the State of Florida Department of Education.

INSTRUCTIONAL MANAGEMENT: A DEFINED ROLE FOR THE TEACHER

Clifton B. Chadwick

Extensive attention is currently being given to the concept of staff differentiation. The Florida project for staff differentiation is preparing to begin developing models of staffing patterns for initial testing in three counties, Leon, Dade and Sarasota. These models, symbolic representations of potential utilization, will hopefully be based in part, on analyses of the current teacher's classroom behaviors and functions. In a subsequent monograph the author proposes to discuss methods to obtain functional analyses of classroom personnel patterns, but will now discuss some possible classroom functions which can be grouped into one possible defined role which should be carefully considered in the model development activities of the Florida project.

History

In the past, the teacher's primary role has been information presentation with concomitant responsibilities for testing, feedback (primarily by a letter-grade medium), and some limited system management. With the rapid growth of schools in the past two decades, the increasing availability of audio-visual aids, the further specialization of the subject matter and the growing size of physical facilities, the teacher's responsibilities for systems management have increased. Most of the new responsibilities are added onto the school system and particularly onto the teacher in an ad hoc basis, that is, the new tasks are not carefully analyzed and integrated into the characteristics and functions of the classroom. (It is assumed and hoped that the Florida differentiated staffing project is avoiding this pitfall.) An example of this ad hoc addition is the development and subsequent purchase by schools of a myriad of audiovisual aids. Talking film strips, overhead projectors, tape recorders, movies, reading papers, and other items are often cumbersome additions to an educational system that force the teacher to make intelligent use of available materials.

Even much of the current effort in computer-assisted classrooms should be viewed as ad hoc addition. The early attempts to integrate programmed instruction into the classroom represented a classic case of add-on responsibility without training in use of the material. There is little evidence that teachers' colleges and universities attempt to understand these new responsibilities in relation to the total educational environment. Frequently no attempt is made to teach the new responsibilities in pre-service training programs, either.

The increased interest in and the subsequent growth of individualized instruction will certainly increase the emphasis on systems management. A highly useful research area for further development is the potential role of the teacher in the individualized classroom. It is important to begin determining what the teacher's role or roles will be and what implications the roles will have for teacher training and school administration. Determination of new role characteristics is particularly important in defining what colleges of education should do to modify, re- develop and change their course offerings, methods of teaching, course requirements, and attitudes toward the teacher.

One particularly useful project of this nature has been completed at Nova University (Flynn, Chadwick and Fischler, 1969). The result of this project is a comparison of the various functional behaviors of teachers in individualized and non-individualized classrooms. A summary of the results of this project will be reported this fall (Flynn and Chadwick, 1970).

The Teacher Relationship

It goes without saying that any attempt to educate is aimed primarily at imparting knowledge, skills, and concepts and processes to the learner. Think of the sort of teacher-learner relationship that existed between Aristotle and Plato, and a personal and constant interchange of thoughts in an engrossing conversation might be envisioned. Teaching tends to attempt to replicate this imtimate dialogue model. It is interesting to note that the demand for a lower teacher-to-student ratio is often voiced to increase the dialogue in the hope that thereby the educational process would improve; but the prospect of having one teacher for every student is dim. Therefore we need to develop new models and strategies fot teaching which are not critically dependent on the personal and constant interaction between one student and one teacher in one setting. Such models might begin by responding to the several types of learning that occur in the classroom, and by the several separate functional activities composed in the teaching-learning process.

With the accumulation of more and more knowledge about the psychology of learning, a demand has arisen for new technology which can effectively put the knowledge into practical use. Such is the domain of the educational technologist, whose contributions over the past few years include such items as programmed instruction, methods for motivating the learner, and systems which tailor the curriculum to the individual needs of each student in a class of forty. In part because of the educational technologist, the educational process has begun to change from a basically intuitive relationship into a much more consistent, systematic process.

This gradual change has begun to alter the role of the teacher and will continue to alter it in the future. The teacher will have to become more systematic and constantly aware of the learnings motivation and management strategies which he is using.

The discussion, so far, has centered upon the changing teacher-student relationship, but this relationship cannot operate and develop without a hospitable environment. It is the job of the school administrator to provide a suitable environment, but he is concerned with physical facilities, dollar expenditure, records, materials acquisition, policy decisions, and personnel decisions. If the teacher was forced to deal with these items, he and the student would have little time together. The interaction among the three---the administrator, the teacher, and the student---must be efficient and effective to permit the achievement of desired educational goals. One of the first steps to achieve this is a clarification of the role of each member of the relationship.

Each of the three must develop a strategy for performing his task and achieving his desired goals. The administrator must manage upkeep and scheduling of physical facilities, acquisition of learning materials, and other items mentioned above. The teacher must manage a records system, a materials system, a method of teaching system, and a media selection system. The student primarily is concerned with the development of his own systematic interaction with teachers and learning materials in an effort to learn.

Instructional Management: The Teacher's Role

In the individualized classroom of the future, the teacher will not be responsible for exposition of subject matter content but will be responsible for selecting educational events and appraising student performance; he will be an instructional manager.

The teacher, or instructional manager, will select educational events appropriate to the student's needs. Examples of this approach can be seen in the individuall prescribed instruction system of the University of Pittsburgh's Learning Research and Development Center (Glaser, 1966) or Project PLAN (Flanagan, 1967).

The term "educational events" is used to emphasize the broad range of potential experiences from which the instructional manager will choose. These experiences include multi-media programs, textbooks, programmed instruction, games, and other modes available for given units of instruction. The educational experience and the appropriate mode should be chosen on the basis of analysis of the student's learning requirements, patterns, and predictions, motivational factors, and the availability of materials for the learning experiences.

Once the learning event has been chosen, the student generally will engage in the learning activity by himself. The concept of systems management also may suggest interaction with other students and occasionally with an adult monitor who may or may not be a teacher. It will not generally be the teacher's task to assist the student during the learning activity. The teacher's task will be to organize and manipulate the instructional environment in such a manner that an optional amount of learning can take place.

Appraisal of student performance will follow his completion of the learning activity. It may take several forms of each type of appraisal being directly related to the type of activity required as a terminal behavior. Paper and pencil tests will not be given where ability to orally discuss is the terminal behavior. Multiple choice tests will not be given where the terminal behavior is development of an intricate hypothesis. The progress check and the instructional manager's interaction with the student will be a function of the class of response for which the student is being tested. (See the note on types of learning, mentioned above.)

Role Differentiation

The specification of the instructional manager's role is not intended to exclude other behaviors that may occur in the learning environment. Other important classes of events will occur in the classroom of the future, but it is probable that they will be divided among a larger number of people.

At the turn of the century, the general practitioner was the dominant man in the medical field, responsible for a broad range of responses. Specialization led to the fragmentation of the medical role to include several classes of practitioners at various levels of responsibility. Doctors specialize in areas such as obstetrics, thoratic surgery, pediatrics, etc., much as secondary teachers are specialized in subject matter areas. But differentiation went together in medicine where a doctor once prepared the patient, anesthesized him, operated and cleaned up we now have the hospital surgery operations requiring orderlies, scrub nurses, surgical nurses, anesthesiologists, and various surgeons.

A division of responsibilities* along functional lines will characterize the schools of the future. By functional, I mean that each member of the instructional team will perform a group of tasks which contributes directly to one or more manifest (i. e., observed) functions. The school will be operated by a team of specialists which may possibly include an administrative manager, an academic manager, a computer operations specialist, information compiliation and utilization experts, various instructional managers, group process specialists, and others.

An important note here is that as this specialization occurs, the concept of cost effectiveness in education will become more reasonable

* in the original document I said "fragmentation of responsibilities" to emphasize the breaking apart of the teachers role.

and more meaningful. When this happens, school systems will be able to begin specifying to the taxpayers what the immediate and long-range results will be for the expenditure of various levels of funding. This analysis will be the basis for the justification of larger (or smaller) amounts of money from varying sources on varying (and probably interacting) programatic or functional items.

Conclusion

The issue of redefining the role of the teacher is neither simple nor non-controversial. The only sure thing is that the teacher as we know her today will not exist in the future. As Frinks (1969) has noted, "any discussion... concerning the process of developing and implementing a more flexible staffing pattern... must of necessity confront many basic educational questions." As the general practitioner is rapidly becoming a think of the past, so will the teacher's role divide itself into a group of roles, each with its specific, delineated function, its own specified training course, and its own distinct place in the education system.

It is in this division, this differentiation, that the Florida Project is engaged.

Source: The Classroom Teacher Speaks on His Supportive Staff. Copyright 1969 by the National Education Association, Washington, D. C.

A SUPPORTIVE STAFF FOR THE CLASSROOM TEACHER

Department of Classroom Teachers, NEA

What Jobs Can Be Done By Others?

Clerical Work

Preparing attendance reports

- School system forms
- Federal attendance forms

Collecting money

- Lunch, milk
- School fees, book rentals
- Magazines, newspapers
- Insurance
- Charity drives
- School pictures
- Field trips
- Money-raising projects
- Banking
- Class parties

Keeping numerous office records

- Homeroom records
- Statistical reports
- Annual and semi-annual reports
- Inventory of class equipment
- Requisition forms
- Federal reports

Handling report cards

- Initial preparation
- Entering grades
- Transferring information
- Collecting and filing cards

Duplicating work sheets and tests

- Cutting stencils
- Operating machines

Maintaining student personnel records

- Initial preparation
- Health records
- Anecdotal reports
- Referral forms

Filing

- Tests, work sheets, and other items
- Resource materials for teaching units

Making home contacts

Making intial telephone call on absences

Setting up appointments for teacher-parent conference

Setting up appointments for home visitation

Typing flexible schedules

Reporting on team teaching.

Teaching-related activities

Initial checking, correcting, and marking of some papers for review by classroom teachers

Administering, monitoring, scoring and graphing standardized tests

Checking out, returning, storing, and maintaining equipment and supplies

Preparing room for use of special equipment

Arranging bulletin boards and exhibits; setting up charts; attending to room environment

Monitoring homeroom and study hall

Supervising some laboratory or some seat work

Researching materials and tools

Supervising student make-up work after school

Administering first aid for minor injuries.

Nonteaching assignments

Supervising students at lunch, recess, and detention; in the halls, library, rest rooms, assembly, and bus

Supervising extracurricular activities--clubs, bus trips, school parties, school activities; selling and collecting tickets at ball games

Assuming cocurricular assignments related to coaching, the student council, the yearbook, and the school play

Performing custodial duties--in the classroom, halls, rest rooms, and faculty lounge.

Announcing and passing out routine bulletins

Caring for preschool children during parent-teacher conferences, lectures, and other events

Health screening--taking weight and measurements and checking vision.

What Jobs Should Be Done By the Classroom Teacher?

The management of the teaching assignment

Having time to teach as the classroom teacher has been prepared to teach

Daily planning within the school day

Working with students individually in and out of school

Consulting with other teachers and specialists during the school day

Conferring with parents

Deciding when and how to use media, equipment, supplies, and techniques

Doing research

Supervising the maintenance of adequate student records

Visiting other classes and other schools to observe new practices and equipment

Making home visitation.

The development of the policies that affect the classroom teacher and the educational program entrusted to his care

Deciding within the classroom what to teach, how to teach it, and when to teach it

Sharing in curriculum development and having released time during the school day to participate in this planning

Having a voice in general policies related to textbook selection; grading system; length of school day and year; selection of new teachers and student teachers; assignment of student teachers and pupils; pupil personnel services; release of students from one class to participate in sports, music, or some other activity; requisition of materials; school open house; and community relations.

The direction of continuing inservice education programs

Keeping up-to-date on the latest development in new content, teaching materials, techniques, and innovations through reading, research, observation, visitation, meetings, college courses, and professional conferences

Attending, with released time, grade level and/or subject matter meetings for exchange of ideas and work on curriculum

Participating in conferences sponsored by local, state, and national professional associations.

Who Are the Classroom Teacher's Supportive Staff?

Certificated Educators

Superintendent
Assistant superintendent
Principal
Assistant principal
Supervisor
Director of improvement of instruction
Curriculum coordinator
Department head
Subject area consultants (art, vocal and instrumental music, drama, mathematics, language arts, physical education, remedial reading, homebound, specialists for exceptional children, etc.)
*Speech therapist
Hearing therapist
Sight therapist
Other teachers in team-teaching plan
TV teacher
*Librarian
Elementary and secondary guidance counselor
Educational psychologist
*School psychometrician
Homebound teacher
Visiting teacher
Audiovisual specialist
University consultant
*Public relations director
Director of evaluation and research
Director of training (human relations skills a prerequisite)

Professional Noneducators

*School nurse
School dentist
Dental hygienist
Dental technician
*School psychometrician
Physical therapist
Social worker
Welfare worker

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*In some school systems, this position may be filled by a certificated educator; in others, by a noneducator.

School physician
School psychologist
*School psychiatrist
School audiometrist
School opthamologist
School-community coordinator (safety, police, fire department, social agencies)
*School secretary
Computer programmer
*Public relations director
Placement director
Pupil personnel worker
Counselor on social problems
Advisor on social-parent relations
Vocational counselor
Personnel in clinic referral centers
Attendance officer
Audiovisual technician
*Speech therapist
Public librarian
Library assistant
Resource people for special classroom assignments (engineers, musicians, politicians, drama specialist, etc.)

Paraprofessionals

Teacher Aide

General teacher aide
- check attendance
- do housekeeping chores
- prepare art supplies, bulletin board, supplementary materials, transparencies
- check objective tests
- record test scores and grades
- file material; prepare reports
- collect money
- compute statistical information
- ditto seat work, charts, maps
- monitor students
- administer remedial drill work
- help individuals and small groups in independent study and follow-up
- assist with music, drama, art
- tell stories

Curriculum laboratory assistant
- cut stencils, makes transparencies, filmstrips, and slides.

Audiovisual technician
Aides for special classes
Physical education aide
Science laboratory assistant
Bilingual aide
Audio assistant
Theme reader
TV staff and technician
Home visitor
Library aide

Clerical Aide

Secretary/Clerk
- conduct magazine campaigns
- collect lunch money
- do bookkeeping for classes and activities fund

*In some school systems, this position may be filled by a certificated educator; in others, by a noneducator.

Monitor

- Hall supervisor
- Playground attendant
- Recess supervisor
- Study hall monitor
- Test monitor
- Lunch room monitor
- Safety aide
- Athletic game supervisor
- Field trip supervisor
- School bus attendant
- Classroom monitor

Others

- Custodian
- Transportation personnel
- Lunch program staff
- *Attendance officers
- Resource people for special class assignments
- Experts from vocational fields
- Artists
- Musicians
- Hobbyists
- Housewives (to demonstrate sewing and food preparation)
- Practitioners of trades (beauticians, printers, etc.)
- *School secretary

Sources of Auxiliary Personnel

- Parents
- Housewives
- Volunteer workers from organizations
- Community helpers
- Dropouts
- Intern teachers
- Retired teachers
- Senior citizens
- Neighborhood youth corps
- Students (peers, college students)

Why Should the Classroom Teacher Have a Supportive Staff?

Learning experiences of children are enhanced

The educational program becomes truly child oriented and flexible rather than task oriented and rigid when time is provided for more intensive planning by more people.

The child gets more of the teacher's time.

Tutorial services of many kinds, as well as appropriate large- and small-group instruction, are provided.

The classroom teacher has time to study each child, confer with parents, utilize auxiliary pupil-personnel services, diagnose problems, prescribe individual treatment, and check on progress made.

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*In some school systems, this position may be filled by a certificated educator; in others, by a noneducator.

The child gets the additional advantage of the knowledge and talents of many individuals such as aides, special teachers, and consultants.

The child benefits from the extra "eyes and ears" alert to individual needs. The aide with special skill and/or with background similar to that of an individual child may be able to identify with the child more readily and to interpret problems more effectively to the classroom teacher.

The child's horizons are widened through the use of special talents of people in the community.

A more relaxed classroom climate is created.

Creativity is fostered.

The increased attention provides a greater feeling of security for the child and fosters increased achievement.

Teacher effectiveness is enhanced.

The teaching task becomes manageable.

- Time is available for the classroom teacher to teach and to create the best possible climate for learning.

- Time is available for preparation and planning for the professional aspects of teaching.

- Fatigue and tension factors caused by trying to cope with an unmanageable burden are eliminated.

The classroom teacher is able to utilize more professionally oriented approaches to the teaching-learning process:

- A wider variety of teaching techniques and skills

- The presentation of subject matter in greater depth

- The team approach, which released and utilizes the talents and expert knowledge of all team members, each of whom makes his own unique contribution

- A new pattern of staff utilization permitting--
    - --diversification of activity in the teaching-learning situation
    - --a variety of student groupings--large-group, small-group, and individual instruction
    - --flexible rather than rigid scheduling
    - --individualized planning to meet individual differences of students
- Enrichment of subject matter content through--

--more reading and research
--greater use of resources

- More effective use of facilities and resources, both human and material
- Team planning, which serves as a teacher stimulus.

In-service education programs for all team members become an expected and necessary adjunct.

The beginning teacher receives support and encouragement. His strengths are utilized and his weaknesses identified and overcome. He gains new insights into teaching and enjoys personal rewards not so readily available in a self-contained classroom.

Services of administrative and supervisory school personnel are enhanced

The traditional pattern of school organization is reevaluated and realigned to meet better the needs of children for tomorrow's society.

The roles of all certificated educators are redefined, and responsibilities are assigned for more effective use of the professional manpower and talents available.

Certificated educators in administrative and supervisory assignments are more closely involved in the actual teaching process.

The total school staff develops a team spirit and loyalty that cannot be achieved when the school system is organized on the basis of the staff-line concept.

Professional prestige of the classroom teacher is enhanced

The recognition of the classroom teacher as a coordinator of a team of professional and paraprofessional staff members promotes in him a greater sense of professionalism and creates in others an awareness of his importance.

The classroom teacher is freed to exercise to the fullest his professional capabilities and is permitted to do what he knows needs to be done when it needs to be done.

A healthy relationship of mutual support and respect is fostered among the teacher, administrator, and paraprofessional. This relationship brings satisfactions not possible in an organization built upon the hierarchical concept of superiority and inferiority.

Housekeeping and clerical chores are eliminated, and teacher morale is improved.

The classroom teacher is freed to serve and is accepted in other professional activities within the school system, such as curriculum development, innovative practices, and in-service education.

Teacher retention and recruitment are enhanced

Attrition of good classroom teachers is minimized through the increase in teacher status and the elimination of unnecessary frustrations.

Both students and aides recognize the new status of the classroom teacher and the increased satisfactions in teaching. As a result, both groups will more readily choose teaching as a career.

The public image of the school is enhanced

Involvement of more lay citizens in providing enriching experiences in the schools develops a greater appreciation for the role of the school as a social institution and improves home-school relations.

The use of citizens as aides and resource assistants develops a civic pride on the part of those involved.

Classroom teachers, parents, and other citizens have more and better opportunities to know and appreciate each other.

What Are the Blocks to Such School Reorganization?

Tradition

Conservative attitude and inflexibility of many people, educators and public alike.

Deep commitment to the status quo in--

--the hierarchical organization of school administration, and
--the self-contained classroom at the elementary level.

School calendar based on needs of an agrarian rather than an industrial society.

Human resistance to change

Human resistance to change and the desire to maintain the status quo are natural attitudes. The statements here presented represent the variety or rationalizations which are most often used to justify inactivity and impede change. Some will seem to be very close to the actual truth; many will be recognized as rash and irresponsible.

Classroom teachers resent invasion of the privacy of their classrooms by outsiders.

Administrators may use the employment of the paraprofessionals as a device to heap more responsibilities on the classroom teacher without compensation or elimination of any current responsibilities.

Paraprofessionals with access to student records may misuse confidential information about students and their families. Aides cannot be depended upon to be ethical.

The public won't accept the use of paraprofessionals in the classroom. Some aides may be used for tasks which belong to certificated personnel.

Some paraprofessionals need so much direction and follow-up that it is better and easier for the classroom teacher to do it himself. Guiding paraprofessionals is a time-consuming endeavor, and classroom teachers will object to the extra planning that is necessary if the services of aides are to be used effectively.

The administration may employ paraprofessionals as a way of saving money. This practice may undermine the teacher's salary schedule.

The employment of aides may result in the use of unprofessional practices in the classroom.

Putting aides in the classroom with teachers will only create personality conflicts.

The use of lay aides may cause classroom teachers to lose intimate knowledge of individual students. There will be a tendency for classroom teachers to lose touch with the individual child's progress if too many instructional responsibilities are delegated to another. Further, the classroom teacher will be robbed of excellent opportunities to get to know his students better.

The administration may use aides as an excuse to increase class size.

There is always the risk of getting an aide who is not really qualified or actually able to do the job correctly. Administrators will take the position that anyone can be used as an aide.

Principals and supervisors have an aversion to becoming part of a team of which the classroom teacher is the coordinator. They do not see themselves as the supportive staff of the classroom teacher.

The classroom teacher is not prepared to be a team leader and to use a supportive staff.

Overuse of aides may cause a gap in the rapport between teacher and student such as has occurred at the college level.

The wisdom of having parents as paraprofessionals and the legality of the use of paraprofessionals are questionable.

There is not enough in the school budget. The money spent on aides could better be spent on more teachers and reduced class size.

The use of paraprofessionals may undermine standards of professional preparation.

The aide will usurp the authority of the classroom teacher.

The classroom teachers will not respect the aides and will asign only menial jobs to the aides.

The classroom teacher will become lax and lazy and let the aide do all the work.

The aide with a philosophy of discipline at variance with that of the teacher will cause conflict between the child and the teacher.

Classroom teachers object to change.

School buildings are not built to permit the use of aides. The rooms are not large enough.

A program of auxiliary personnel is promoted merely to solve the community unemployment problem.

Unimaginative and insecure classroom teachers and administrators

Apathetic and indifferent attitudes prevail.

There is no professional preparation for this type of school operation and administration.

The limited perspective of too many educators and boards of education impedes their recognition of the need for change.

The threat of unknown and the security of known inhibit action. Both classroom teachers and administrators fear loss of authority and are unwilling to face the possibility of failure.

Too many school systems lack adequate supportive services, especially in the area of pupil personnel needs, such as experts with specialized knowledge to solve the many different types of problems of students.

The importance of evaluation, research, and development (a necessary adjunct in any business enterprise today) is not recognized as an integral part of the public school structure.

Inadequate planning

By local school systems:

- Insufficient time is devoted to planning a program based on the concept of a supportive staff for the classroom teacher.

- The total staff, the school board, and the community are not involved in initial planning.

- The philosophy and rationale underlying the program are not sound in that--
  - --There are no clearly defined aims, goals, or purposes.
  - --The availability of federal funds rather than a recognized educational need motivates the initiation of the program.
  - --The program is used as a cover-up for hidden objectives such as the anticipation of cutting costs.
  - --The program is sold on the premise that "it will lessen the work of the classroom teacher."

- New staff relationships are not clearly outlined in that--
  - --Terms are not explicitly defined.
  - --There is a lack of understanding of multiple and changing responsibilities and authority between and among members of both the professional and paraprofessional staffs. Clarification is needed on who is responsible to whom and for what, why, and for how long.

- Sufficient attention is not given to space problems caused by the design of many current school buildings--such as how to provide flexible work areas in a somewhat inflexible structure.

- The program is not clearly justified in terms of budget allocations.

By the professional association:

- The organized profession has not accepted the responsibility of building a climate for change and making a commitment to experimentation.

- Research on the strengths and weaknesses of this type of school organization is insufficient.

- There is a lack of effective public relations programs to inform the public on the changing needs of education and to develop public support for change.

Inadequate in-service education programs

Adequate orientation and continuing in-service education programs for paraprofessionals are needed in the following areas:

- Understanding the jobs to be done

- Developing the necessary skills

- Learning how to become an effective team member

- Identifying and accepting personal responsibilities

- Becoming knowledgeable about school philosophy and policies

- Studying the Code of Ethics of the Education Profession

Adequate orientation and continuing in-service education programs for educators are needed in the following areas:

- Personnel management
  - --Developing the ability and skills of the classroom teacher to "orchestrate" a team of adults to meet the learning needs of pupils.

  - --Developing the ability and skills of administrators to "orchestrate" teams of adults of which classroom teachers are team coordinators

  - --Developing the skills of all educators to serve at times as team members and at other times as team leaders

  - --Developing the skills of all educators to identify, release, and use effectively the special talents of individuals

  - --Learning to delegate authority

- New methods, contents, and resources.

In-service education for total staff--professional and paraprofessional together--is needed in the following areas:

- Utilizing resources, both human and material, to improve educational opportunities for the child

- Evaluation, research, and further development of the program itself.

Inadequate personnel policies for auxiliary staff

There is lack of clearly defined job descriptions with qualifications identified for the respective job.

- What can the teacher aide do?

- What should the teacher aide not do?

- What are the functions of other paraprofessionals?

There is a lack of clearly defined employment policies.

- What are the policies on screening of candidates?

- What are the hours, wages, and leave policies of paraprofessionals?

- What are the opportunities for advancement for paraprofessionals?

There is a lack of clearly defined assignment policies.

- Who makes the final decision on which classroom teachers will have aides and which aide will be assigned to which classroom teacher?

- Who makes the final decision on what specific jobs paraprofessionals will do in a specific classroom?

- To whom is the paraprofessional directly responsible?

- How will the rights of the paraprofessional be protected?

Inadequate school financing

In general, few school budgets are adequate to provide high quality education under the existing philosophy of school organization and operations.

In general, few school budgets provide funds for evaluation, research, and development which would facilitate experimentation with this type of school organization.

Federal funds which allow for such experimentation are available only to a limited number of schools.

To finance such a program through an increase in local tax moneys will require the development of a sound philosophy and rationale to justify the request to the public. To prepare such a justification without experimentation is almost impossible.

This type of school organization and operation planned to meet the needs of today and tomorrow necessitates increased staff and more resource materials and will cost more money, not less.

Inadequate state laws

Some state laws require that certificated educators be fully responsible for children while they are on school property.

Many state laws do not specify that authority for supervision of children can be delegated by certificated educators to paraprofessionals.

RECOMMENDATIONS FOR ACTION

To The Local School System

Leadership

Provide dynamic, aggressive leadership committed to educational change to meet today's and tomorrow's challenges.

Pilot projects

Plan, implement, and evaluate pilot projects using supportive staff.

Total Involvement

Involve classroom teachers, administrators, and laymen in the planning, implementation, and evaluation.

Obstacles

Study blocks listed in this report, evaluate them in light of the local situation, identify the specific impediments which apply in the community, and plan a procedure which minimizes these impediments.

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THE NON-TEACHER

Nicholas Collis

Is it possible that teachers are still using children as "storage and retrieval mechanisms?" This kind of performance can be accomplished better by a piece of hardware which, incidentally, has infinitely more patience than any mortal teacher.

Dr. Norman D. Kurland, director of the Center for Innovation in Education, and of Title III, ESEA, in the New York State Education Department, has put the role of tomorrow's teacher in sharper focus. He has said:

> "The role of the teacher will certainly be greatly modified. Some will be engaged primarily in the preparation of the instructional system in cooperation with other specialists. Such work will require a vast increase of understanding of both the learning process and the subject to be taught. The primary role of the teacher will be to do what an automated system can never do--motivate, counsel, and lead students to those higher order functions which are the primary goals of education--to question, imagine, invent, appreciate and act."

The 30 to 1 pupil-teacher ratio and the self-contained classroom are as outmoded as the "Model T." It is becoming increasingly evident to most educators that individualized instruction must be provided on a mass basis. The kind of teachers needed for this program must be able to operate on a higher level of educational sophistication than is currently practiced. These teachers must be able to work with a variety of teaching tools and have the ability to work cooperatively with and give direction to a staff of semi-professionals. The assistance of these supportive services, provided by qualified, well-trained semiprofessionals, permits the teacher to concentrate on a higher order of functions that should be his prime responsibility; namely, "director of learning," "diagnostician of learning problems," and "prescription writer for learning disabilities," call it what you will.

Radically new staffing patterns are required. They call for a sharper delineation of duties to be performed by both professionals and semiprofessionals. A new hierarchy within the teaching ranks could be developed, enabling excellent and dedicated teachers to have available to them a vast array of resources, including both the new media and a supportive staff. Teachers with this kind of capability and responsibility would naturally command a much more realistic salary. This is an alternative to the long debated and apparently impractical merit pay approach.

To develop new staffing patterns for our schools would mean a new approach for teacher-training institutions. Primary emphasis should be placed on the art of learning, with subject matter serving as the medium through which learning takes place.

For the first time in history, schools are attempting to prepare children for future occupations that are not only non-existent today, but may also change during their productive lives. The concept of terminal education is already outmoded. Learning how to learn should be the major goal of our schools.

If we subscribe to the concept that the classroom, particularly the self-contained classroom, is obsolete as a unit of instruction, it should never be necessary for a teacher to work with more than a cluster group of 8 or 12 students at one time and only when realistic dialogue between teacher and student, and student with student, can take place.

School administrators should be relieved of the "nuts and bolts" of running a school so they can vigorously involve themselves in the learning process and the meaningful and strategic deployment and redeployment of staff and learners so that optimum learning can take place. Routine chores of the school administrator should be placed in the hands of individuals with business background and knowledge of systems and their application in education. In other words, a business manager should manage the school, and the principal--as we now know him--should be the instructional leader.

With the vast strides being made in communications technology, tomorrow's administrator will have staff members that he may never meet. Gifted teachers, as well as lay people, will be able to contribute to the learning process from around the world by instant audio and visual communications. The learning resources of the entire world will be available at the touch of a dial. Storage and instant retrieval of any material on earth is technologically possible today. But before this rich treasure of knowledge can be properly used, new staffing patterns must be established.

Many school systems across the nation have in the past several years introduced other adults into the classrooms as resource persons or as aides. This has been made possible primarily under Title I of the Elementary and Secondary Education Act of 1965. The training programs for these semiprofessionals--or teacher aides--range from no orientation at all to orientation requiring several days or weeks. The reports indicate a fantastic range of services rendered by these people, but the majority of them perform duties at a relatively low clerical level.

So that schools can prepare themselves to take advantage of modern technology and the icreased demands placed on the professional teacher, care must be taken in the preparation and utilization of semiprofessionals as staff members. A major ingredient in any aide training program is the smooth meshing of functions of the aide and teacher to preclude demoralizing role conflict.

The Educational and Cultural Center serving Onondaga and Oswego Counties, (ECC)), one of 16 regional centers in New York State, administering Title III funds will be working in this broad area under a program funded by the United States Office of Education. It is called: "A Career Line Training Program for Semiprofessionals in Education."

As indicated by the title, this proposal has as its mission, "a career line training program for semiprofessionals in education." In raising the quality of education and in permitting teachers to perform a higher order of functions, the semiprofessional should become a permanent part of the staffing pattern in our schools.

The program is a design that includes the participation of professionals, semiprofessionals, and school administrators. The trainee, usually recommended by a local school district or recruited directly, enters the program through screening procedures administered by a counseling unit. This unit evaluates the individual as to previous experiences, both academic and practical. The trainee is then individually programmed, based on his needs and qualifications. He is scheduled to participate, if necessary, in courses offered by various institutions of higher learning located in the community. These institutions include universities, two and four year colleges and business institutes.

Simultaneously, he is assigned to a teacher, under whose direction and supervision he will work on a one-half day basis. This assures that both the practical and academic experiences will be parallel. The classroom teacher must participate actively in groups with the aide trainees to assure smooth working relationships and maximum utilization of the aide's services. Through such seminars, involving teachers, aide trainees, and at times administrators, delineation of tasks can be clarified. The counseling unit is constantly in touch with the trainees so that flexibility in meeting the needs of the trainees is assured.

The length of time a trainee is in the program depends on his experiential level, his individual needs and the particular role he will play in the school. For example, aides may function at one of four levels: clerical; technical; assistant teacher; associate teacher. Therefore, some trainees may complete programs in just a few months while others may be involved for one or more years. Credit will be given for collegiate level courses so that a career line can be established in the event any trainee wishes to continue toward full teacher certification.

The majority of aide-trainees will assist classroom teachers at all levels, K-12. Others will be trained to assist guidance counselors, librarians, audiovisual specialists, physical education teachers, industrial arts teachers, art and music teachers, and in the many aspects of special education including the emotionally disturbed and the mentally retarded.

During the first year (the 1967-68 school year), up to 100 trainees may participate. This number will be increased in subsequent years, tentatively to 200 the second year and 400 the third year. The program is scheduled for a three-year period. A unique feature, accompanying individual scheduling of students, will be the extensive use of media, including self-paced, programmed instructional materials. Through use of media, the trainees will not only undergo a part of their instructional program, but will also learn to use technological equipment effectively. It is expected that semiprofessionals could become supportive members of teaching teams as well as serving groups of individual teachers. At the end of the first year's experience, ECCO should be able to answer any questions concerned with the use of the semiprofessional aide in education. A basic factor underlying the entire proposal is that these semiprofessionals will always function under the supervision of fully qualified professional teachers. This will give teachers an opportunity to work at a higher professional level, permitting more individualized instruction and consequently greater educational opportunities for all students.

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AUXILIARY SCHOOL PERSONNEL

A Statement by the National
Commission on Teacher Education and Professional
Standards

INTRODUCTION

Most teachers spend too much time at tasks that do not require professional competence and responsibility. Elementary school teachers collect milk money, oversee recess, and monitor lunchrooms and lavatory periods. Secondary school teachers stand vigil in halls and study halls, chaperone dances and perform endless other duties that are not a central part of teaching and need not be done by professional staff. But such duties are a necessary part of the educational program and must be handled by someone. There also are paraprofessional tasks -- those which involve elements of professional skills -- which auxiliary personnel could perform under the supervision of teachers.

Deciding on appropriate roles for auxiliary school personnel is still in the beginning stages and will need trial and evaluation. Whatever roles develop for auxiliary personnel, the teacher will remain the diagnostician for learning, the manager of learning experiences, and the decision maker in learning situations. The central reason for employing aides is that the teacher needs auxiliary and support personnel working with him to provide a wider range of services to his students.

Despite any endorsement of the teacher's need for assistance, there are still many questions to be answered about auxiliary personnel. How and by whom should they be selected? What training should they have? What jobs might they do? What attitudes should teachers adopt about their use? What controls are needed for screening or certifying them? These are the questions most often raised about auxiliary school personnel.

The following questions and answers are the views of the National Commission on Teacher Education and Professional Standards (NCTEPS) on some of the crucial issues educators must resolve in the selection, training and assignment of such personnel. The Commission is concerned in this statement with all kinds of aides, but particularly with auxiliary personnel who assist teachers in instruction. These are the new people in schools about whom there is apprehension and uncertainty; these are the people who can most help teachers do a better job.

The intention of this statement is to present information that will be useful to educators who will be considering these issues in their own communities.

INITIAL CONSIDERATIONS

Q. Who are auxiliary personnel?

A. Auxiliary school personnel, or teacher aides (we prefer the former term to either teacher aides or paraprofessionals), are people brought into the schools to assist teachers in educating children and youth. The use of auxiliary school personnel is not new; many systems have employed lay readers, library and lunchroom aides and the like for years. Parents, high school students, college and community college students have performed a wide variety of duties in schools.

Q. Why are auxiliary personnel needed?

A. Auxiliary personnel allow teachers to do a better job of teaching, e.g., to individualize instruction. Teachers presently must handle many tasks which do not require professional skill and which infringe on the time they have to devote to teaching and planning. Teachers need time to reflect and more opportunities for professional growth.

Q. What has caused the recent upsurge of interest in and emphasis on the use of auxiliary personnel?

A. Several social, educational, and economic factors have contributed to a sharp increase in the number of auxiliary personnel employed in schools and have evoked widespread interest in this development. Some of these factors are:

1. The expanding need and demand for school services.
2. New dimensions in education, such as reorganization of the structural patterns in schools, an expanded curriculum, and the concept of differentiated roles for teachers. These include flexible scheduling, cooperative and team teaching, and different approaches to learning, such as large group work, seminar work, and individualized instruction. These new dimensions make teaching a more complex and demanding job.
3. Acute shortages of professionals to meet these needs. The employment of auxiliary personnel can help alleviate these shortages by allowing educators more time for professional duties and would permit greater efficiency in the use of time. Auxiliary personnel would not replace teachers but support them.
4. The availability of federal funds for employing nonprofessionals in education through such sources as the Office of Economic Opportunity and Title I of the Elementary and Secondary Education Act. A bill (S.721) has been introduced in the 90th Congress to provide federal financial support for teacher aide programs.
5. A heightened awareness of the special learning needs of all children and youth, but especially of the disadvantaged.

6. The belief that the use of indigenous people as teacher aides might bring about better communication between professionals and pupils of different backgrounds.

7. The plight of persons with less than a college education who are unable to compete in an increasingly automated economy but who could contribute to education and find personal satisfaction in working in schools.[1]

Q. What kinds of jobs and responsibilities might auxiliary personnel assume?

A. The kinds of jobs aides can perform vary greatly and are influenced by grade level, subject, kind of community, educational philosophy, and other factors. A few major job categories are evident and suggest the scope of possible paraprofessional tasks.

Clerical aides enter marks on report cards, compute averages, type and mimeograph stencils, and do other related jobs. Library aides assist in processing books and in handling circulation and reference work. Housekeeping aides take care of ventilation and lights, clean up after art classes, put up and take down displays, and help young children with their clothing. Non-instructional supervisors oversee halls, lunchrooms, and playground activity. Instructional assistants help teachers in classrooms, read to youngsters, keep attendance registers, work in laboratories, and prepare instructional materials. Still others take charge of audiovisual and graphic aids and operate and repair equipment.

Other roles for auxiliary personnel might involve the application of human relations skills in establishing relationships with parents and community leaders or the utilization of a special talent in assisting in the teaching of woodworking, dance, music, or art classes.

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[1] Adapted from "Auxiliary School Personnel: Their Roles, Training and Institutionalization." Based on a nationwide study conducted for the U.S. Office of Economic Opportunity. New York: Bank St. College of Education, October 1966.

This listing is not complete, but it does indicate some possibilities for utilizing auxiliary personnel services and highlights some jobs and levels of responsibility.

Auxiliary personnel should free professionals to execute professional responsibilities. Any hard and fast list of auxiliary duties could create a wrong impression, because such assignments should be conditioned by the needs of a given teaching situation.

Q. Who should determine what responsibilities auxiliary personnel should have and what duties they should perform?

A. The faculties of local schools. Defining the functions of auxiliary personnel should be undertaken at two levels. First, the faculty of each school district or building should determine the general guidelines and policies for the use of aides. Second, each teacher should specify the job and guide his aide in terms of the particular teaching need. A teacher aide should be just that -- an aide to the teacher. But decisions at this point should be tentative and open to change until more data have been gathered on the use of auxiliary personnel.

Q. Should all teachers have aides?

A. Local school faculties must answer this question. It requires a penetrating consideration of present practice and possibilities for differentiating teacher roles. Of course, other groups, such as TEPS, will influence their decisions by providing opinions about teacher and auxiliary personnel roles.

Therefore, although final determination must be local, the criteria used in making decisions should be based on the judgments of a variety of professional educators.

Factors which need to be considered include the following: Some teachers prefer to work alone and may not want aides. Should they be forced to accept assistance? When only a limited number of aides are available, how should decisions be made as to which teachers will receive assistance? Should aides be assigned to beginning teachers who might have more difficulty because the whole job is new, or to skilled, experienced teachers who might have an opportunity to acquire new or deeper professional dimensions in teaching when someone takes over routine and nonprofessional duties? Should a teacher's needs and skills help determine the assignment of aides?

Some teachers lack the managerial qualities necessary for supervising auxiliary personnel and will need careful guidance and assistance in developing these qualities. Others who possess such qualities may uncover, release, and direct the valuable potential of their aides.

QUALIFICATIONS AND TRAINING

Q. What qualifications should auxiliary personnel have?

A. Since all auxiliary personnel will not have the same skills or serve the same function, their qualifications and salaries should vary. The lunchroom aide, for example, does not need the degree and kind of skills a lay reader needs. A clerical aide might need only a high school education with emphasis on clerical skills, but a graphic artist hired to prepare instructional materials might need two or more years of college. Teachers and others must develop job classifications, and a specific job will dictate the aptitudes needed, the qualifications to be met, and the pay to be received.

It is difficult to specify qualifications until the requirements of particular jobs are determined, and they in turn may be influenced by the manpower pool available. Decisions about qualifications should remain flexible until more is learned about how to use aides.

Q. Might some auxiliary personnel be people who are preparing to teach?

A. College students in teacher education are one important source of teacher aides. The experience of assisting a teacher can be extremely valuable and may help strengthen the tie between theory of the college curriculum and the reality of the school classroom. Too, auxiliary programs open to undergraduate students in all college departments might attract some able people to teaching who might otherwise be missed; such programs could also be an avenue to a career in teaching for candidates who have not taken the usual college route to a profession. An auxiliary personnel program could be a route to full-fledged teaching for both college students and adults.

Q. Should people indigenous to a particular environment be among the auxiliary personnel?

A. Auxiliary personnel indigenous to a community can be assets to its schools in many ways. By bringing a fresh and different perception of children of similar background and the educational problems peculiar to them, they can help teachers and administrators to better understand a community and its people. This might be true particularly in disadvantaged neighborhoods where some aides have more rapport with and sensitivity to the children and parents than the teachers have. Such an aide might be able to explain education to parents and other citizens in the community who fear or resent it. As effective, well-trained, and skillful people doing important work, such aides might also become models for children, providing them with attainable goals to strive for.

However, no one should be accepted as an aide solely to provide jobs for the poor or unemployed. In all cases the aide should be able to make a contribution to the educational program, whether he is indigenous to a particular subculture or someone brought into the school without special regard for origin, background, or present environment.

Q. How should auxiliary personnel be screened?

A. A preliminary step in the screening process might be to establish ground rules for selecting people who seem capable of being effective helpers with children. After initial interviews, most of the screening could take place in the training program, with senior teachers assuming major responsibility for selection and job counselors being employed to assist the people about whom there is doubt.

Q. How much and what kind of training should auxiliary personnel have?

A. No definite decisions can be made now about desirable educational levels of prospective aides. Their training should depend both on the jobs for which they are being prepared and on the educational levels they have attained.

Experience in teacher education should have some value in developing training programs for auxiliary school personnel. For example, the frequent complaint that the relationship between theory and practice in teacher training is inadequate suggests that auxiliary personnel training programs should provide a close tie between real experience and abstract discussions. To avoid creating a gap between the preservice and inservice programs for aides, parallel programs of training and work might be ideal. Joint responsibility by schools and colleges for planning, financing, and staffing such programs would be of central importance.

In addition to academic and practical training, consideration should be given to aide training to improve self-concepts.

Any training program for auxiliary personnel should also entail a systematic follow-up, including evaluation, description of the program in progress, interviews with participants, and continuing assistance for teachers and aides. At this time, crystallizing training programs should be avoided in order that the results of evaluation can be used continually to make improvements in them.

Q. Who should be responsible for training auxiliary personnel?

A. The local school system must bear the major responsibility. Since school staffs, particularly the teachers, will determine what roles aides should have, they should have a major part in their selection and training. When government support programs are available to colleges or other agencies for training auxiliary personnel, the teachers who will have direct supervision over them should be involved.

Preparing teachers to train and use aides may be the best way to initiate widespread employment of auxiliary personnel in effective roles, and social welfare agencies should be urged to cooperate in preparing teachers to train and supervise auxiliary personnel. Colleges are especially important here in developing preservice and in-service teacher education which includes such preparation.

Q. Should additional in-service training and continuing education opportunities be available for auxiliary personnel?

A. Most aides will benefit from in-service training and support after they begin working in schools. In many cases, informal seminars and the assistance of resource personnel may be all that is necessary to keep aides abreast of new developments which are relevant to their work. A position as an aide should be viewed as a desirable, satisfying and status-giving terminal occupation for those who have no wish to acquire further education. However, opportunities for promising personnel to realize their potential must be created for those who do desire further education. Colleges and universities could develop special programs for those people and give credit for aide training and classroom experience.

Q. Since auxiliary personnel are in a unique relationship with children and will sometimes have confidential information about students,what can be done to sensitize them to the ethics of the professional?

A. Much of the information teachers use or share about students and school situations is of a confidential nature. Having and using such information is a professional privilege and prerogative and is guided by high ethical standards.

Since auxiliary personnel will have access to privileged professional information, it will be necessary to help them learn and operate on the basis of the ethics of the teaching profession. Teacher aides should know that a breach of educational ethics is as unacceptable as any other form of malpractice. How ethics for auxiliary personnel can be taught is a question educators will need to experiment with. Exemplary behavior on the part of teachers will certainly be important. But attention to professional ethics must go beyond helping aides learn. There should also be some arrangement for enforcing high standards. Policy and procedures for the protection and discipline of auxiliary personnel need to be established and methods for enforcement should be clear.

Q. If auxiliary personnel are going to work with children, should they be licensed?

A. Auxiliary personnel should meet proficiency standards determined by the nature of the jobs they will perform. In most instances, such standards should be formulated and applied at the local level. At the present time, it would be inadvisable for states to issue licenses for auxiliary personnel. Not enough is known about teacher aides and the qualifications they need to decide the basis on which they might be licensed. It would be wise for states to encourage experimentation with different practices and criteria for auxiliary personnel and to let decisions about licensure wait until more evidence is available.

It would also be appropriate for the state education agency to develop general standards for various types of aides. Professional associations can serve a quality control function by helping to assess the effectiveness of aides, by defining qualifications for aides as related to specific subject areas, and by policing practice to assure that auxiliary personnel are not employed for professional responsibilities.

MISCELLANEOUS QUESTIONS AND ANSWERS

Q. What are the attitudes and opinions of school principals and teachers toward auxiliary personnel in areas where they are currently working?

A. In 1965, a study conducted by the New York State Education Department[2] indicated that 428 of 629 school districts in the state were employing 3,314 teacher aides. Ninety-three percent of the districts considered their experience with aides favorable. Twenty-six districts were neutral, and only four expressed unfavorable opinions. Dissenting opinion seemed to appear principally where untrained aides were assigned heavy noninstructional supervisory responsibilities in the lunchroom.

Reissman and Pearl[3] cite as a favorable experiment a team-teaching project begun in Pittsburgh in 1960. Twenty mothers were recruited to assist in duplicating teacher prepared material, operating audiovisual equipment, and performing other tasks. The project was so successful that the number of aides was doubled after the first four years.

Q. Should auxiliary personnel be full-time or part-time employees?

A. Employment arrangements should depend upon the needs of the school and the availability of personnel. Traditionally, full-time people have been preferred because they can identify more easily with the school program. However, there are people who have particular skills the school system may need but who may not find it feasible to work full time. Many part-time noninstructional aides, such as typists, have been assets to schools for years.

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[2] University of the State of New York, State Education Department, Bureau of School and Cultural Research. Survey of Public School Teacher Aides, Fall, 1965. Albany: the Department, April 1966.

[3] Reissman, Frank, and Pearl, Arthur. New Careers for the Poor. New York: Free Press, 1965.

In addition, many wives and mothers among them high school or college graduates, are available for part-time work. Some of these are former teachers who don't want to teach full time but would like to assist teachers.

Q. When should teachers and auxiliary personnel have an opportunity to evaluate their efforts and develop new plans?

A. Teachers and auxiliary personnel and other professional-nonprofessional teams must have time to plan and evaluate their work. Evaluation should be frequent, perhaps every day, so that the team will be coordinated and well-organized and each member can fully understand and develop his role. The opportunity for teachers and aides to discuss problems and make plans is also essential for the success of the auxiliary personnel program. Auxiliary personnel need to have constant consultation with the professionals they are assisting, and teachers will benefit from this opportunity to hear aides' suggestions and to develop new working procedures with them. Teachers and auxiliary personnel who work as a team in the classroom must have the opportunity to plan as a team. In some schools that are now using auxiliary personnel group planning periods are regularly scheduled during the school day. They could also be held after school hours,,but extra compensation should be given.

Q. Will extensive employment of auxiliary personnel be very expensive?

A. Employing auxiliary personnel will require increased expenditure by local school systems. The cost may be mitigated in some cases by government funds. Federal legislation for additional funds for teacher aides is now being considered.

Improvement in any field often involves more money. The most important question is whether the advantages gained from auxiliary personnel services are worth the additional cost. Allocating funds for auxiliary personnel can help to prevent the waste of time, money, and resources which occurs when professional people who are prepared to teach are prevented from fully developing their potential. Providing teachers with more time for professional activities is an important step toward ensuring that children receive the best education available.

Q. If the number of auxiliary personnel increases, what will be the effect on teachers and the teaching profession?

A. The effective use of auxiliary personnel could be one of the most significant recent advances in education. As he is released from routine tasks, the teacher can devote more time to teaching and assume a truly professional role. New organizational patterns in the schools probably will evolve, and differentiated roles for teachers and teacher aides will develop. It is still too early to predict the exact nature of these patterns; for example, one obvious trend is differentiation of roles for career or master teachers, regular teachers, beginning teachers, assistant teachers, and different kinds of aides.

The use of auxiliary personnel also will affect teacher education programs. Being an aide may become a regular part of preparing to teach and should help students to learn how to work with aides as well as give them experience in the classroom. In such situations colleges would need to work closely with schools, and parallel programs of work and study could be evolved.

Q. What is to prevent the use of auxiliary personnel from becoming a cheaper way to man the classroom?

A. It is possible that, on some occasions, aides will be used instead of teachers in order to save money. It will probably not happen often, but it would be foolish to ignore the possibility of its happening sometime. Teachers, administrators, parents, school board members, and all others concerned with education must see that this does not happen. One safeguard against the exploitation of teacher aides is to have the functions of auxiliary personnel largely determined by teachers. It should be the responsibility of educators to see to it that teacher aides are not allowed to assume the professional duties of the teacher. Since aides will be working directly with them, teachers should share the responsibility of seeing that they fulfill their proper functions.

Q. Is it possible that, by using the services of auxiliary personnel, teachers might become more remote from the children -- less involved in their problems and their lives?

A. This is possible and teachers will have to make a conscious effort to see that it does not happen. Teachers who have aides will have the opportunity to gain increased insight as they have more time to study individual students. They also will benefit from hearing the opinions of their aides.

Q. What can teachers and administrators do to get ready for auxiliary personnel?

A. Teachers and administrators, individually and in faculty groups, should begin to assess the various tasks that teachers perform. They should study and determine professional and nonprofessional skills. They should be willing to accept help in performing lower-level duties. They should visit schools where auxiliary personnel are employed to see the possibilities for their service and obtain reactions of teachers, administrators, aides, and students in those schools. They should be willing to experiment with and evaluate new approaches to the educational process in their own schools to find the most effective uses of auxiliary personnel.

Q. What should be the role of the state department of education?

A. Many auxiliary personnel have come into the schools by virtue of federal legislation. Most of the legislative acts charge the state department of education with some responsibility. The state department should establish machinery for devising guidelines for school districts in setting up reasonable proficiency requirements. A broad cross-section of the profession should be involved in formulating the guidelines and setting requirements. They should consider and develop methods of protecting auxiliary personnel from exploitation as well as protecting teachers and children. And not only must there be leeway for experimentation, but it should be encouraged.

Until more information about aides is compiled, state departments should be wary of making official pronouncements and establishing rigid criteria:

Q. What can the colleges do?

A. Colleges and universities can begin considering programs to help teachers learn how to train auxiliary personnel. They also can consider and develop ways in which future teachers might spend a semester or a year in a paid auxiliary position as part of their professional preparation. This, of course, would not overlap or replace student teaching. Most important, the institutions can provide internships and student teaching in schools which employ auxiliary personnel.

Colleges and universities, and junior colleges, can also consider developing programs for the direct training of auxiliary personnel.

Q. What can interested citizens do?

A. Board members, citizens groups, and individuals can become informed about the issues, problems, and advantages involved in hiring auxiliary personnel. They can visit other schools to see how aides are now being used. They can encourage teachers and administrators to join them in these activities and discuss with them the ways in which auxiliary personnel can assist in getting the vital job of education done in the most efficient and effective manner in their own schools.

Q. What can local education associations do?

A. Professional organizations can become informed about the issues involved in selecting, training, and assigning auxiliary personnel and bring them to the attention of the community.

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WHAT TEACHER AIDES CAN--AND CANNOT--DO

S. Kern Alexander

Nearly half the teacher aide programs now operating in large public schools are less than three years old. Using a sample of large school districts, a recent report found that 40 per cent of all teacher aide programs were started in the 1965-66 school year and 36 per cent between 1960 and 1964.[1] Because of the comparative recency of the use of teacher aides, their function in our educational system is ill-defined. There are no concrete definitions or measures of established practice which state and local school districts can use as guidelines.

Most states do not have specific statutory provisions pertaining to teacher aides. The majority of the school districts operating aide programs are doing so under general legislative provisions for operating and maintaining public school systems.

The legal question is: "Does a school district have the authority to expend public funds for teacher aides in the absence of statutory authority?"

A case which may serve as precedent was decided in Minnesota involving the employment of a school nurse. The board of education employed a nurse for one month to make an inspection of the physical condition of the pupils in certain schools. The board's authority to take this action was challenged. The court held that the board exercised an imlied power and said:

> The purpose of the corporation is to maintain efficient free public schools...and, unless expressly restricted, (the school board) necessarily possesses the power to employ such persons as are required to accomplish the purpose. Education of a child means more than merely communicating to it the content of textbooks."[2]

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[1] "Teachers Aides in Large School Systems," Circular, Educational Research Service, No. 2 AASA--NEA, Washington, D. C. April 1967, pp. 1-2.

[2] State v. Brown, 112 Minn. 370, 128 N. W. 294.

Other courts have rendered similar decisions concerning student teachers. In a West Virginia case, a school board consented to provide practice schools for college teacher training. The authority of the school district to provide supervision and facilities for the student teachers was challenged. The court held for the school district saying where a board of education has powers and discretion for the conduct and management of the public schools, the board has the authority to determine the mode and course of instruction.[3]

Although some conflicting cases exist regarding the power of boards of education to expend public moneys for certain purposes, the weight of judicial authority, as the above cases show, seems to support the general premise that in the absence of statutes to the contrary, the power to hire and pay teacher aides is within the authority of local school districts.

Recent legislative action: While there seems to be no great trend in this direction, some state legislatures in recent years have enacted statutes providing for the employment of teacher aides. Some of these statutes provide for teacher aides for specific purposes, while others are rather comprehensive and provide a very realistic legal and broad-scale basis for such employment.

During 1965, the Washington[4] and Massachusetts[5] legislatures passed laws authorizing local school districts to employ noncertificated personnel to supervise pupils in noninstructional activities during regular school lunch services. The Washington provision was made in order to provide teachers with a 30 minute duty free lunch period.

In 1966, the California legislature authorized approval of projects for noncertificated school aides for use in compensatory education programs in Grades K-6. Such aides may be high school students in Grades 11 and 12 and college students. The legislature felt that it was necessary to make provisions for employment of aides to reduce the ratio of pupil to aide/teacher in order that compensatory classes not exceed 20 to 1.[6]

Nevada[7] and Illinois[8] in 1967 enacted legislation which provided for

[3] Spedden v. Board of Education, 74 W. Va. 181, 81 S. E. 724.

[4] Washington Code, Chapter 18, 1965.

[5] Massachusetts Code, Chapter 164, Acts of 1965.

[6] California Legislature, Senate Bill No. 28, 1966.

[7] Nevada Code, Chapter 201, 1967.

[8] Illinois Legislature, House Bill 1107 and House Bill 1889, 1967.

more general use of teacher aides than did either the California or Washington statutes.

The Nevada statute is probably the most comprehensive and grants boards of education the power to employ teacher aides and other auxiliary nonprofessional personnel. These personnel must be directly supervised by certificated persons when assisting in instruction, but may not be under such supervision when performing non-instructional duties. The legislature in this state had the good foresight to require that local boards of education, employing aides or auxiliary personnel, develop written policies governing their duties.

State education agency provisions: In recognizing the need for teacher aides, several state boards of education and state departments of education have published statements concerning the use of aides in our public schools. Generally, these provisions have not been adopted as official state regulations and, therefore, do not carry the weight of law, but they do lend guidance and direction in the employment and use of teacher aides.

A recent study by the New England Educational Assessment Project pointed out that the state departments of education in New England have not licensed or certified teacher aides but have issued general statements regarding duties and qualifications of aides.[9] Maine, for example, defined a teacher aide as a noncertified person whose duties are limited to assisting a certified teacher. This department of education describes the types of responsibilities which aides may assume in assisting the regular teacher. This statement places limitations on the use of teacher aides in saying that "aides shall not be used as substitute teachers, to relieve teacher overload, or to replace teachers on leave." Qualifications for aides are also detailed. They are: Aides must be at least seventeen years old, be a graduate of secondary school, have the moral character required of teachers.

Federal Programs

Although teacher aides or auxiliary personnel have been used for a number of years by many school districts, a giant step forward was taken in this area by the passage of the Elementary and Secondary Education Act of 1965. This Act provided many school districts with the necessary funds to employ teacher aides to assist with programs for culturally deprived children.

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[9] 'Teacher Aides in the Classroom, A New England Study." New England Educational Assessment Project, Funded under Title V, Section 505 of the Elementary and Secondary Education Act of 1905, Providence, Rhode Island, November 1967, pp. 23-27.

In 1965, the U. S. Office of Education published guidelines[10] which suggested the use of subprofessional personnel for assisting teachers in educating culturally deprived children. The guidelines pointed out that parents may be employed and this might help bridge the communication gap between home and school.

In 1967, the Congress enacted the Education Professions Development Act.[11] This Act provides for state education agencies to submit state plans which include programs to obtain services of teacher aides and to provide them with preservice or inservice training which will enable them to better perform their duties. In order to participate in this program, the state education agency must establish certain standards for teacher aides and should indicate the scope and nature of the duties expected of teacher aides. Also, this Act requires that in order to participate, states must designate the program of state supervision and leadership to be used and develop short and long-range policies and procedures on the use of these federal funds to obtain and train teacher aides.[12]

Authority of Teacher Aides

Teaching: All states have certification laws which require persons to meet certain minimal qualifications before they may become teachers in the schools. Therefore, unless there are statutes providing to the contrary, a teacher aide is not authorized to perform instructional duties or to teach.

The attorney general of at least one state has held that a school district cannot receive state aid allotments for the time pupils spend under the lone supervision of noncertificated persons such as a student teacher or teacher aide. This decision would probably apply to most states that distribute funds on pupil-teacher ratios or classroom units based on the number of teachers employed.[13]

Regulation of pupil conduct: Some teacher aide duties include situations which require direct contact with pupils and may render the aide at least partially responsible for the conduct and control of pupils. These activities include supervising playgrounds, cafeterias, study halls, the loading and unloading of school buses, and corridor monitoring. Many of these duties formerly belonged to the teachers and administrative personnel.

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[10] "Guidelines, Special Programs for Educationally Deprived Children," Draft, October 8, 1965, Office of Education, H. E. W., p. 20.

[11] Education Professions Development Act. P. L. 90-35, Sec. 520, Title V, Part B, Higher Education Act of 1965, as amended.

[12] "Guide for Preparing a State Plan for Attracting and Qualifying Teachers to Meet Critical Teacher Shortages," Under Part B, Subpart 2 of the Education Professions Development Act (Title V of the Higher Education Act of 1965).

[13] Kentucky, O. A. G. No. 269, 1963.

Unless it is specifically provided for in statute or by state board of education regulation, the teacher aide probably does not have the authority to regulate pupil conduct. There is little case law relating to this problem, but decisions concerning the use of student teachers may be used as a guide. For example, the Supreme Court of West Virginia upheld the use of student teachers in the classrooms but ruled they had no authority to control pupil conduct. The court in this case said:

> The law requires the employment of competent teachers, but there is no express exclusion of assistant of underteachers. The student teachers are not employed, nor have they a particle of authority in management and control. While they are dealing with classes, the regularly employed, competent teachers stand over them and see that recitations are heard and instruction given according to their own judgment, will and discretion. This involves no delegation of their powers."[14]

Swalls[15], after extensive research concerning the legal status of student teachers, concluded that the weight of evidence seemed to indicate that the student teacher had no authority to regulate pupil conduct. While student teaching activities and teacher aide duties do not precisely coincide, especially where student teachers are allowed to conduct regular class work, a general area of nonprofessional duties and activities exists which would place the two under the same umbrella of common law reasoning.

Liability For Pupil Injury

When teacher aides are assigned tasks involving supervision, they are placed in positions of potential liability for pupil injury. In such a situation, liability is likely to arise out of negligence on the part of the aide. Any person assigned such responsibilities is ignorant at his own peril. If he is not qualified to supervise playgrounds, then he should not try to do it.

In cases involving pupil injury, the courts have traditionally held the teacher to a higher standard of care than that owed to the general public. Likewise, a teacher aide, when placed in a supervisory capacity, owes the pupils a greater standard of care than is normally required in other personal relationships.

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[14] Spedden et al. v. Board of Education of Independent School Dist. 81 S. E. 724 (W. Va.).

[15] Swalls, Fred, "Legal Aspects of Student Teaching." Cooperative Research Project, S-075 (Order from the Interstate Printers and Publishers, Inc., Danville, Illinois).

Liability of administrator or supervisor: Where the administrator or supervisor appoints a well qualified person to perform certain functions about the school and injury results, the administrator is not liable for negligence. The general rule of law is that in the public school situation the master is not liable for the commissions or omissions of his servant. In a Rhode Island case illustrating this principle, the court held that a school principal, who had authority over a school janitor, was not liable for injuries to a school teacher when he failed to warn her of a slippery floor in the school building.[16]

Therefore, a teacher or a principal is not liable for the negligent acts of a properly appointed and qualified teacher aide. On the other hand, if a teacher or a principal assigns duties for which the teacher aide is not qualified and the purposes of which do not fall within the scope of the aide's employment, the teacher or the principal may be liable for negligent acts by the aide.

In a New York case,[17] a child was injured during lunch hour in the school gymnasium while under the supervision of the school janitor. The school district was found negligent on the theory that the duty to provide competent supervision had not been met. The court said:

> "By common practice the only supervision, direction or control provided was that of a janitor. It might well be that one employed as a janitor would be competent to direct athletic activities. But the proof here is that the one to whom supervision was entrusted was in fact, a janitor, and nothing else....It is our view that this was a palpable failure to meet the requirements of the common-law rule, as well as an evident neglect of the duty imposed by the student."

[16] Gray v. Wood, 64 A. 2d 191 (1949).

[17] Garber v. Central School District, 251 App. Div. 214, 295 N. Y. Supp. 850 (1937).

Source: TEPS Write-in Papers on Flexible Staffing Patterns, May, 1969. Reprinted with permission from the National Commission on Teacher Education and Professional Standards, National Education Association, Washington, D. C.

STUDYING TEACHER CLASSROOM BEHAVIOR TO DETERMINE HOW PARAPROFESSIONALS CAN HELP IN THE CLASSROOM

Donald M. Sharpe

A prior consideration to role differentiation should be role identification. Before specific roles can be assigned to aides, paraprofessionals, or professionals, teaching roles need to be carefully identified and classified. Instead of engaging in a philosophical discussion of possible teaching roles, I propose a careful look at what teachers do in the classroom.

Studies of how teachers spend their time suggest that too much of their school day is spent in nonprofessional or clerical pursuits. For example, a Virginia study[1] showed that elementary teachers "waste" about one and a half hours a day.

In considering the utilization of teacher aides and paraprofessionals, typically one thinks of their being employed in roles outside the classroom, such as supervising playgrounds, scoring tests, and performing clerical chores. Data being collected in an ongoing study[2] of student teacher assessment suggest that some of the typical classroom activities of a secondary school teacher could be delegated to another person or to a machine.

One of the assumptions of the movement to differentiate roles in education is that such differentiation will lead to more efficient utilization of professional personnel. There is some evidence, however, that this assumption is not supported by experience, that teachers who are relieved of routine chores simply increase the amount of time they spend in the coffee lounge. Plans for staff differentiation must focus on creative ways of using the time provided by the employment of paraprofessionals.

Other studies which have examined what teachers do in the classroom can provide insights into teaching roles and will prove helpful to persons interested in studying the teaching act: Withall[3], Flanders[4], and Amidon and Hunter[5], have measured interaction in the classroom. Smith[6] has analyzed the logical aspects of classroom discourse. Medley[7] and Mitzel[8] have made extensive measurements of teacher and student teacher classroom behavior. Hughes[9] developed instruments for assessing the quality of teaching in elementary schools. Bellack[10] has made a detailed analysis of the linguistic behavior of teachers and students in the classroom.

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[1] Virginia State Department of Education, Division of Educational Research. An Analysis of the Use of Teacher Time in Virginia. Bulletin, Vol. 49, No. 6. Richmond: the Department, December 1966. p. 33.

[2] Sharpe, Donald M. Isolating Relevant Variables in Student Teacher Assessment. U. S. Office of Education Cooperative Research Project OEC 6-1321-0342.

As one facet of a basic study of student teacher evaluation, my associates and I analyzed the way secondary student teachers spent their time when responsible for teaching a class. After several approaches, we found it possible to distribute their activities among the following categories: management of nonlearning activities (MN), management of learning activities (ML), presentation (P), recitation (R), discussion (D), logical thinking (LT), and attention to the thinking process (TP).

[3] Withall, J. "The Development of a Technique for the Measurement of Social-Emotional Climate in Classrooms." Journal of Experimental Education 17: 347-61; March 1949.

[4] Flanders, N. A. Teacher Influence, Pupil Attitudes, and Achievement. U. S. Office of Education Cooperative Research Project No. 397. Minneapolis: University of Minnesota, 1960.

[5] Amidon, Edmund, and Hunter, Elizabeth. Improving Teaching. New York: Holt, Rinehart and Winston, 1966.

[6] Smith, B. O., and others. A Tentative Report on the Strategies of Teaching. U. S. Office of Education Cooperative Research Project No. 1640. Urbana: Bureau of Educational Research, University of Illinois, 1966.

[7] Medley, D. M., and others. Coding Teachers' Verbal Behavior in the Classroom: A Manual for Users of OScAR 4V. (Mimeographed)

[8] Mitzel, H. E.; Schueler, H.; and Gold, M. Improvement of Student Teaching. Phase I, U. S. Office of Education Cooperative Research Project No. 73003. New York: Hunter College of the City University of New York, 1962.

[9] Hughes, Marie. Development of the Means for the Assessment of the Quality of Teaching in Elementary Schools. U. S. Office of Education Cooperative Research Project No. 353. Salt Lake City: University of Utah, 1959.

[10] Bellack, A. A., and others. The Language of the Classroom. Parts I and II, U. S. Office of Education Cooperative Research Project No. 2023. New York: Institute of Psychological Research, Teachers College, Columbia University, 1963 and 1965.

See the Appendix for notes on the Teacher Classroom Activity Profile (TCAP), instructions for its use, a sample form, and a glossary of terms.

Obviously these categories permit only gross classification and are not mutually exclusive. However, a minimal amount of training does enable an observer to obtain a generalized picture of the teacher's or student teacher's classroom behavior.

A preliminary analysis of the results of 1,361 observations suggests some interesting hypotheses which are relevant to the problem of role differentiation in the secondary school classroom (see Table 1).

Student teachers were observed by two types of supervisors: members of the Indiana State University Division of Teaching who devote their full time to the supervision of student teaching; working with students in different teaching fields; and departmental supervisors who work with student teachers in their own particular disciplines. It should be noted that in only one category--discussion--was there any significant difference in their distribution of teacher classroom activities. Part of the variance could be due to different behaviors of student teachers and part could be due to different understandings of the unique definition of the term discussion. The high degree of agreement between the classifications made by departmental supervisors and divisional supervisors suggests that the TCAP can be used with a minimum of training.

Table 2 shows that there is a significant difference in the way teachers spend their classroom time in academic-type classes--e.g., English, mathematics, social studies--when contrasted with laboratory-type classes--e.g., typing, physical education, music. (An analysis of variance showed that the differences (F scores) were significant at the .005 level for all categories of activity except management-learning. Space does not permit an analysis of these differences here.)

HYPOTHESIS NO. 1 RE: MANAGEMENT-NONLEARNING (MN)

If teachers spend large amounts of time on housekeeping chores, as is frequently alleged, this study does not provide such evidence. It would be difficult to justify a classroom aide purely on the grounds that he can relieve the teacher of such menial tasks as "collecting milk money," making announcements, and performing the necessary bureaucratic chores. It should be noted that this study made no attempt to classify teacher activity outside the classroom. It may be that the housekeeping chores which loom so large in popular discussion are peculiar to elementary schools or occur outside the classroom in secondary schools. Less than 5 percent of the time was spent on such chores. Also included in this category was time spent in disciplining and reprimanding students. Examination of the observers' notes shows that less than 1 percent of class time was spent reprimanding or dis-

Table 1.--PERCENT OF CLASSROOM TIME DEVOTED TO VARIOUS CATEGORIES OF BEHAVIOR BY 1,097 SECONDARY STUDENT TEACHERS AS RECORDED BY DIVISION OF TEACHING SUPERVISORS AND BY 264 SECONDARY STUDENT TEACHERS AS RECORDED BY DEPARTMENTAL SUPERVISORS

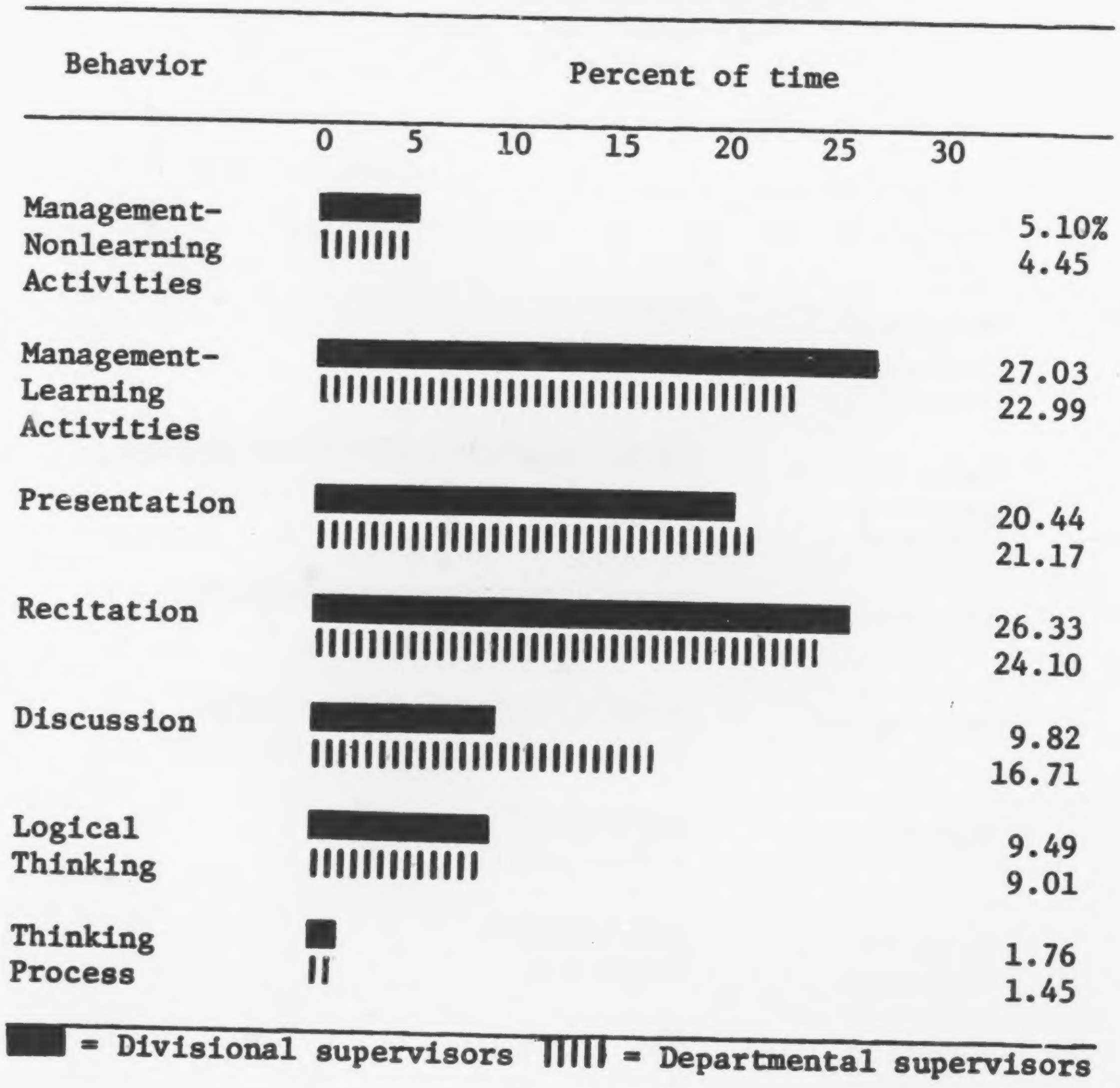
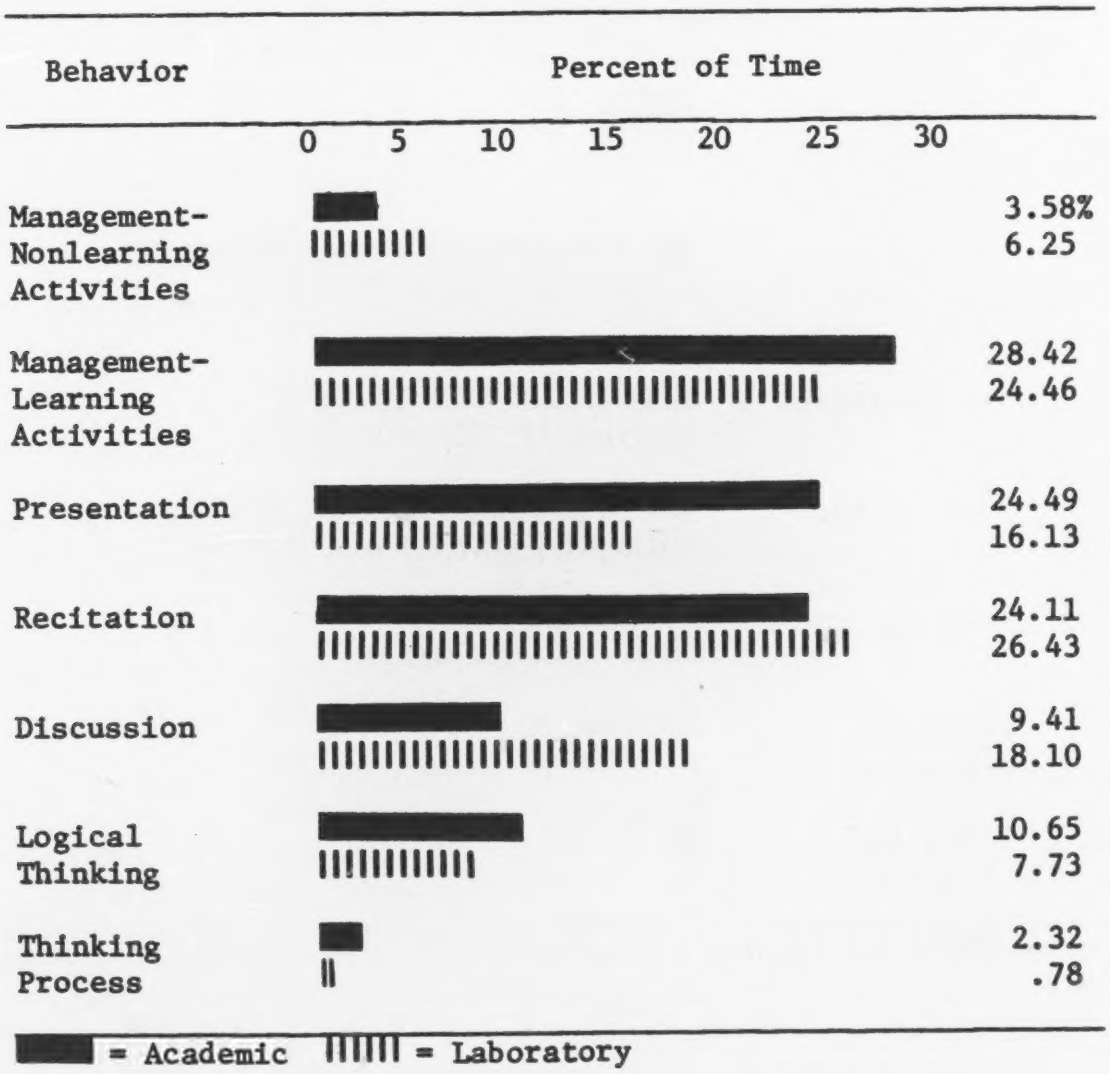


Table 2.--PERCENT OF CLASSROOM TIME DEVOTED TO VARIOUS CATEGORIES OF BEHAVIOR BY 736 SECONDARY STUDENT TEACHERS IN ACADEMIC-TYPE CLASSROOMS AND BY 625 SECONDARY STUDENT TEACHERS IN LABORATORY-TYPE CLASSROOMS



cipling students.

HYPOTHESIS NO. 2 RE: MANAGEMENT-LEARNING (ML)

For 28 percent of the classroom time, a technician, an aide, or a monitoring device could be as effective as a professional teacher. Student teachers spend this amount of time in a passive role of permitting students to learn rather than helping them learn. The teacher is simply managing the class while a film is being shown or monitoring a test or permitting students to styd. He plays no leadership or teaching role orher than that of having planned the activity.

HYPOTHESIS NO. 3 RE: PRESENTATION (P)

If a teacher spends approximately 25 percent of his time in presentation and teaches the same class four times, it is possible that modern educational technology could relieve him of the equivalent of approximately one class period per day. A similar saving of time and energy might be made through flexible scheduling.

Student teachers spend less time than one would think in lecturing. The criticism of the lecture method as a teaching device may have had some effect in limiting this type of teacher activity. Approximately 25 percent, or 15 minutes, of each hour was spent in formal presentation in academic-type classes. Since time devoted to feedback and analytical discussion appears in another category--logical thinking--one could argue that presentations could be made by machines or lecturers in large groups. Most models of a differentiated staff provide for some such specialization on the assumption that it is more efficient to present a demonstration or lecture once to a large group of pupils than to repeat it several times to smaller groups. However, the problems of logistics and organization may reduce the advantage.

HYPOTHESIS NO. 4 RE: RECITATION (R)

Approximately one-fourth of a student teacher's class time is squandered in old-fashioned recitation--terse reporting of memorized data and oral testing--even though the evidence is overwhelming that it is educationally and psychologically unsound. A restructuring of teaching roles and the improvement of teacher education could provide personnel skilled in interaction, reinforcing, and thinking who would completely eliminate recitation as here defined and replace it with logical thinking. When one adds the 25 percent of the time spent in recitation to the 15 percent wasted in discussion, as here defined, he becomes alarmed at the human wastage which occurs in the classroom.

HYPOTHESIS No. 5 RE: DISCUSSION (D)

Too much of class time is spent in pointless talk and purposeless interaction. This hypothesis needs to be examined carefully and the findings subjected to replication. The Indiana State University observers found that approximately 15 percent of every hour was spent in random discussion, irrelevant talk, and pseudointellectual activity such as stream-of-consciousness interaction or words expressed without any apparent focus or purpose.

It is possible that this behavior is more characteristic of student teachers than of experienced teachers. It is possible that beginners are afraid of silence in a classroom and feel a compulsion to fill the silence with words, even though they may be purely irrelevant words. There is some evidence that this phenomenon is not limited to student teachers. It may be that the observers erred in categorizing the teacher's behavior because they were unable to determine his long-range plan or purpose. However, the observers were careful to shift the classification to logical thinking, recitation, or presentation whenever any "rhyme or reason" appeared in the "talk, talk, talk." Time classified as discussion in this study was considered wasted time. This is not to denigrate the value of discussion but to emphasize that what masquerades as discussion is frequently not only time wasted but time that is actually miseducative.

The findings suggest the need for specific training in the use of discussion as an instructional technique.

HYPOTHESIS NO. 6 RE: LOGICAL THINKING (LT)

Far too little classroom time is devoted to thinking if one excludes the simpler types of mental activity of absorbing information and recalling specific facts. Only 9 percent of the time is spent in analyzing, synthesizing, reasoning, questioning conclusions, or creative thinking. Of course, staff differentiation will not automatically solve this problem. However, it could make possible the identification of teachers who are skilled in this pedagogical activity and permit them to share their talents with other members of the staff. Teacher educators must assume more responsibility for improving skills in logic, thinking, and problem solving.

HYPOTHESIS NO. 7 RE: ATTENTION TO THE THINKING PROCESS (TP)

Although it is commonly assumed that the major purpose of public education is the improvement of the students' ability to think, only a small fraction of a teacher's time is devoted to the improvement of his pupils' thinking. For less than 2 percent of the time was the teacher deliberately helping students to improve the quality of their thinking. There is considerable evidence that teachers will modify their classroom behavior to provide more attention to the thinking process when they become aware of how little time they devote to it. It is also possible that the delegation of some activities to another person will permit the kind of careful planning which is needed to enable the teacher to function in this, the highest professional role.

Conclusion

While the problems of role differentiation were not a primary consideration in the designing of the study of teacher classroom activity, the results would appear to have some relevance. It would seem that such an analysis could be the starting point of any attempt to differentiate teaching roles.

This simple way of taking a look at what teachers actually do may be a precondition for improving their professional behavior. The completed profile, with such notes as are made, constitutes a sequential account of the major activities in which the teacher engages during the class session. The Teacher Classroom Activity Profile has been an effective instrument in defining the role of the supervising teacher insofar as it helps reconstruct the teaching act and makes it subject to analysis and evaluation. The instrument tends to sharpen perception rather than interfere with it and provides a point of departure for the examination of alternative actions. The TCAP is used to report rather than evaluate teacher classroom behavior. No hierarchy of values was preassigned to the seven categories, although a value system is implicit. Student teachers are encouraged to ask themselves if this is the way they want to spend their class time and to create other, alternative patterns of behavior.

This preliminary analysis of the findings does seem to suggest a fruitful field of study for those who are concerned with role differentiation.

While there is no assurance that the provision of other personnel to perform some of the tasks which teachers currently perform would automatically result in an increased emphasis on the quality of thinking in the classroom, it might well provide the necessary conditions.

The redirection of teacher education, both preservice and in-service, is necessary if teachers are to become true professionals who help children learn to learn and learn to think.

APPENDIX

Preliminary Notes on Teacher Classroom Activity Profile (TCAP)

Donald M. Sharpe
August 1967

Rationale

The Teacher Classroom Activity Profile (TCAP) has been developed to serve two complementary purposes: first, to improve the quality of supervision, and second, to provide objective data for research on teacher behavior. (Basic Research USOE No. 6-1321.)

The Teacher Classroom Activity Profile is printed in two forms: the 8x11" no-carbon-required triplicate Form B , and the IBM card Form C. The NCR Form B will generally be used in observations--one copy (yellow) for the student teacher, one copy (white) for the Division of Teaching, and one copy (pink) for the departmental supervisor. The IBM card will be used for key-punching, filing, and research purposes.

The TCAP has been found to be an effective instrument for helping supervisors and cooperating teachers record a student teacher's classroom behavior for subsequent analysis and evaluation. An observer can acquire the necessary skill in a relatively short time. The instrument actually sharpens perception rather than interferes with it. The completed profile provides data which enables the student and supervisor to "reconstruct the experience" and examine the effectiveness of the teaching acts and consider alternatives. The completed profile constitutes a sequential account of the major activities in which the teacher engages during the class session.

The report is nonnormative, although the observer does have to make judgments in categorizing the teacher's behavior. In contrast with the Secondary Student Teacher Performance Profile (SSTPP), it is not an evaluative instrument. Since extensive training and controlled conditions are required for satisfactory use of the SSTPP, its use is restricted to the staff of the Division of Teaching who are participating in the research study. The TCAP focuses directly on what the teacher does and only indirectly on what the pupils do.

Instructions for Use of the TCAP

TEACHER CLASSROOM ACTIVITY PROFILE

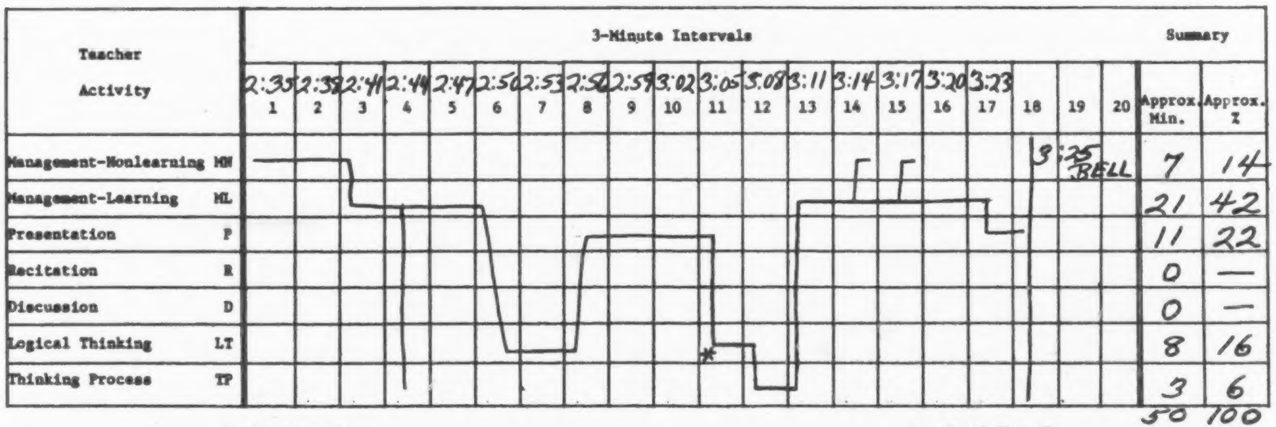
TCAP FORM B

I.S.U. DIVISION OF TEACHING, 1966

STUDENT TEACHER Sandra Blank DATE 12-14

CLASS English-V TYPE Academic SUPERVISOR Sharpe

SUPERVISING TEACHER Mrs. Jones



Teacher Activity		Summary: Approx. Min.	Summary: Approx. %
Management-Nonlearning	MN	7	14
Management-Learning	ML	21	42
Presentation	P	11	22
Recitation	R	0	—
Discussion	D	0	—
Logical Thinking	LT	8	16
Thinking Process	TP	3	6
		50	100

Explanatory Notes

1-3 Distributed corrected themes individually - without comments.

3-6 Allowed time to read her comments.

7-8 Responded to questions about marks - Good.

8-11 Informal introduction to the "Short Story."

12 Discussion of values - "good and bad."

13-17 Study time.

17 Two minutes for assignment.

Anecdotal Records

* Good response to pupil who asked why he should study short stories.

4 Good question.

14-15 Reprimanded pupils.

← Teacher played role of umpire.

13-17 Teacher walked around room - Good.

The observer records a continuous line moving among the seven major activities in 3-minute intervals. Explanatory notes should be keyed to the column numbers which indicate the sequence of 3-minute intervals. If there is just a momentary shift in categories, a vertical line going up or down to the proper category should be made without interruption of the general flow of the regular profile graph.

For instance, if a teacher interrupts a presentation to reprimand a student or to ask for attention, since this activity is classified as management-nonlearning (MN), a line would go up to the section on management-nonlearning (MN); or similarly, if the teacher is conducting a recitation and stops a moment to ask a question which provokes thinking and then goes on with the recitation, a line would drop down to the section on logical thinking (LT). For summary purposes, count four such lines as the equivalent of one minute. If this activity goes on for a minute or more, the graph should show it as a part of the continuous line. It is possible to indicate 1- or 2-minute sequences by using one-third or two-thirds of the space.

It has been found helpful to indicate the time of day at each of the 3-minute intervals, starting in Column 1 with the minute the class starts and then recording the time at 3-minute intervals after that in the numbered squares. The total number of minutes should, of course, add up to the total spent in observation. The percentages should be computed approximately, to the nearest percent. Percentages should tally to 100. A table to facilitate this computation is available in ______________ office.

The NCR paper makes it possible for the observer to provide the student with a copy of the analysis. The left-hand column, "Explanatory Notes," should be used to describe any unusual movement of the profile or to identify something that happened that might be discussed. The righthand section, "Anecdotal Records," could be used to make evaluative judgments, jot down ideas, or make suggestions that may be helpful to the student. Some of the staff have found it helpful to mark an X in the appropriate category at the time an opportunity to help pupils improve their thinking was missed.

TCAP forms should be completed, including the summary computation, and returned to the Research Office of the Division of Teaching at the end of each platoon. Be sure to include indentification data--student and observer.

Definitions of Major Categories

While the terms used to identify the seven categories of teacher activity carry common connotations, their use in this study is restricted to the precise meanings as defined and illustrated below. The definitions and examples serve as a basic point of reference. The pricise distinctions among the various categories are clarified in staff discussions and individual conferences. The TCAP can be used in both academic classes and laboratory or shop-type classes; however, the precise meaning of the categories would differ.

The following definitions apply to academic-type classes, e. g., English, social studies, mathematics, science other than science laboratories.

MN Management-Nonlearning. Management of classroom in a situation where the teacher is not attempting to teach, e. g., reading announcements, taking roll, distributing materials, having idle time, disciplining pupils, waiting for the bell to ring.

ML Management-Learning. Management of classroom in a situation where learning may occur but the teacher is not involved except in a managerial role, e. g., showing a film, administering a written examination, supervising study time, hearing student reports.

P Presentation. The presentation of subject matter by the teacher in some organized fashion, e. g., lectures, demonstrations, illustrated talks, blackboard presentations, reading.

R Recitation. The solicitation of student responses which call for terse memorized data, oral testing to determine if assignments have been read, review questions, etc.

D Discussion. Random discussion involving student-teacher interaction but without analysis or synthesis. "Stream-of-consciousness" discussion without any apparent focus or purpose except to consume time until the period is over, e. g., "talk, talk, talk." When discussion does come to a focus, it fits into the next category, logical thinking.

LT Logical Thinking. Discussion which involves analysis and synthesis. The teacher is deliberately encouraging or permitting thinking to occur. This category is more than reciting or repeating something which has been learned or memorized. When the teacher acts to encourage thinking, it should be recorded here, whether or not the act is successful. (Use vertical lines to this category when a brief interval of thinking occurs in presentations, recitations, or discussion.)

TP Thinking Process. Deliberate, conscious attention on the part of the teacher to the intellectual process, e. g., pointing out to students the factual or logical basis of their thinking, pointing out errors in reasoning, examining the reliability and validity of evidence, examining the adequacy of the sample, defining terms, checking assumptions, examining the scientific method, examining values, seeking reason for conflicting opinions, locating the source of difficulty, examining the "method of inquiry." (Use explanatory notes to report good examples. Put an X on the profile if an opportunity to contribute to the thinking process is missed.)

The following modifications apply to laboratory-type classes--e.g., science laboratory, shop, band, orchestra, physical education, typing.

MN Management-Nonlearning. Basically the same as for academic. Include clean-up and waste time. Record here the time in which the teacher ignores pupils to work on outside activities.

ML Management-Learning. Basically the same as for academic. Warm-up time, showering, dressing.

P Presentation. Same as for academic.

R Recitation. Same as for academic. Include drill and practice time in this category, review exercises, supervised practice.

D Discussion. Same as for academic.

LT Logical Thinking. Consider all purposeful work which the teacher is actively supervising or directing in this category.

TP Thinking Process. Same as for academic. This category applies if the teacher is working with a single pupil, a group, or the total class.

Source: The Teacher and His Staff: Differentiating Teaching Roles, Copyright, 1969 by the National Education Association, Washington, D. C. Reprinted with permission from the National Commission on Teacher Education and Professional Standards.

STAFF SUPPORT FOR INNOVATIVE TEACHING

Eugene R. Howard

Not long ago Denemark stated flatly that "the job of today's teacher has become virtually unmanageable. Unless something is done to remedy the situation, creative, competent teachers will find themselves hopelessly bogged down in technical and clerical duties which could be performed by others."[1] Certainly, those of us who have been involved in the activities of the Year of the Non-Conference will agree wholeheartedly.

Likewise, the public relations director for the Illinois Education Association has stated that no single individual could possibly possess the competence, energy, or time to deal effectively with all the responsibilities typically assigned to one teacher. "The self-contained teacher, the self-contained classroom, and the self-contained school are obsolete."[2]

Probably we could all agree with this statement, too. As Patton pointed out, changing and expanding the traditional concept of one teacher ministering to all children to the concept of a system which involves cooperative efforts by teachers, teacher aides, consultants, and other supportive personnel, was the central focus of the Non-Conference.

Consider for a moment some of the tasks teachers are typically asked to perform in the conventionally organized schools.

The central task--that of planning, managing, and evaluating the teacher-pupil-materials interrelationship--is the task for which teachers are especially trained (see Figure I). The management of this interrelationship is usually what we mean when we talk about "teaching." The task includes planning units of instruction, diagnosing student learning difficulties, prescribing appropriate learning activities, relating learning experiences to individual pupil interests, organ-

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[1] Denemark, George W. "The Teacher and His Staff." NEA Journal 55:17; December 1966.

[2] Patton, L. Goebel. "The Teacher and His Staff: The Year of the Non-Conference." Illinois Education 56:21; September 1967.

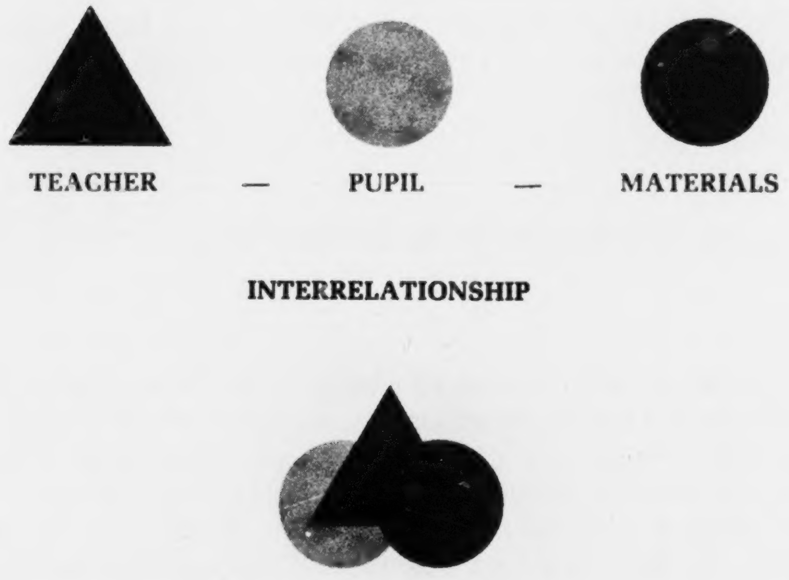
TEACHER — PUPIL — MATERIALS
INTERRELATIONSHIP

FIGURE I

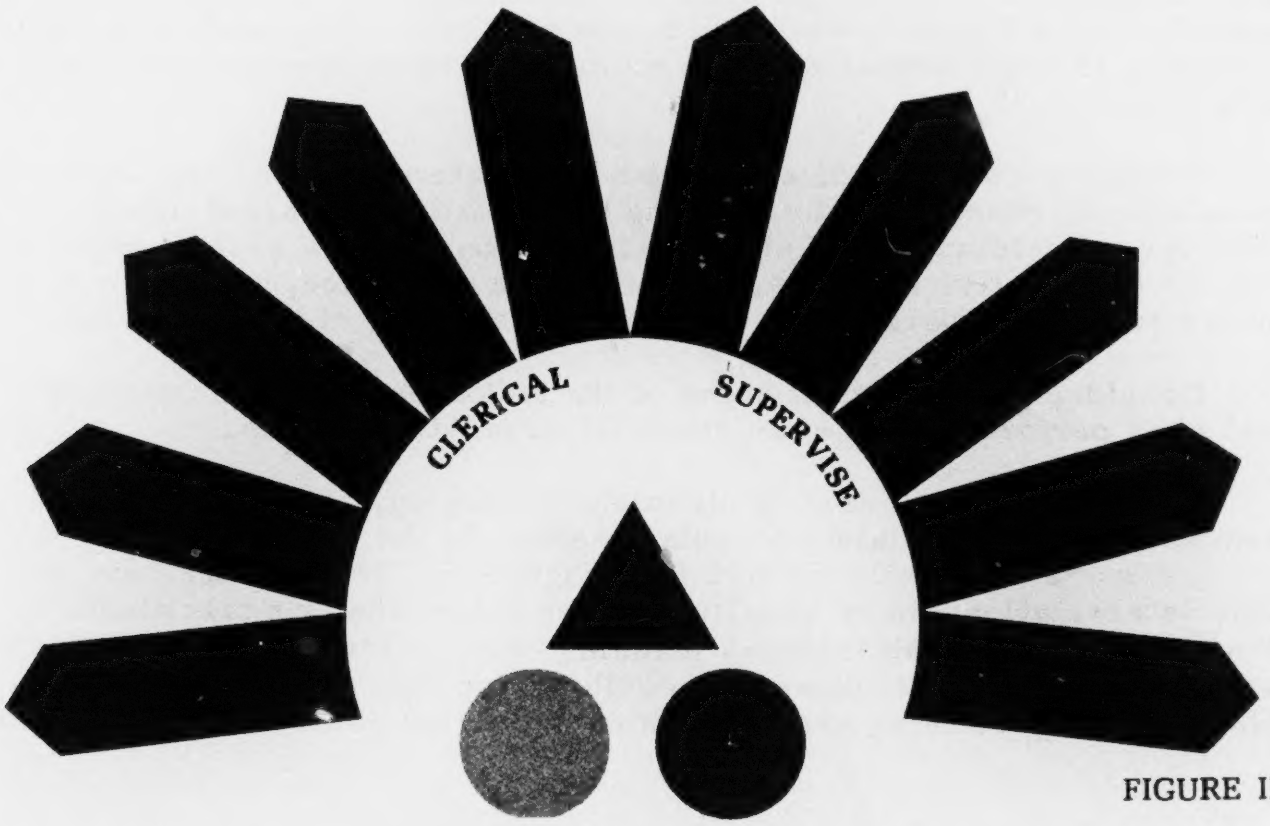
CLERICAL
SUPERVISE

FIGURE II

izing curriculum, and evaluating pupil progress. It is a kind of "psychological architect" role.[3] The teacher helps his students build step by step the kind of psychological environment which will encourage positive attitudes toward learning. This psychological environment is composed, at least in part, of the teacher's and the group's performance expectations, the value systems of the pupils and the institution, and the social and communications structure of the group.

These two roles--the role of manager of the teacher-pupil-materials relationship and the role of psychological architect--are the most highly professional. They demand of the teacher an extremely high level of understanding of applied psychology of learning, of group dynamics, and of the functioning of the social system within which learning is to take place.

All else is distraction.

But look at the many other jobs we ask teachers to do (see Figure II). We ask them to do their own typing; keep and reproduce pupil records; mark papers; run duplicating machines; collect and account for money; order and return films; supervise lunchrooms, playgrounds, corridors, and washrooms; and operate audiovisual equipment. And this, as you know, is only a partial list.

Businesses organized this way would go broke. Any hospital which built job descriptions like this for its doctors would be killing its patients.

The Year of the Non-Conference was organized to encourage in our nation's schools the building of new, reasonable, rational, highly professional teacher roles. Our experiences this year suggest to us that a productive teacher-pupil-materials relationship can best be supported in three ways: (a) through providing teachers with the assistance of a variety of different kinds of auxiliary personnel, (b) through providing teachers with the support of many different kinds of professional specialists, and (c) through enabling teachers to utilize better the unique talents of one another (see Figure III).

Let's look individually at each of these three kinds of support for professional teaching.

[3] See especially: Parker, J. Cecil, and Rubin, Louis J. Process as Content: Curriculum Design and the Application of Knowledge. Chicago: Rand McNally and Company, 1967. Chapter 5, "The Engineering of a Process-Centered Curriculum," pp. 50-66. "In its simplest sense," say Parker and Rubin, "classroom instruction is a matter of establishing conditions under which the child can learn." (p. 60).

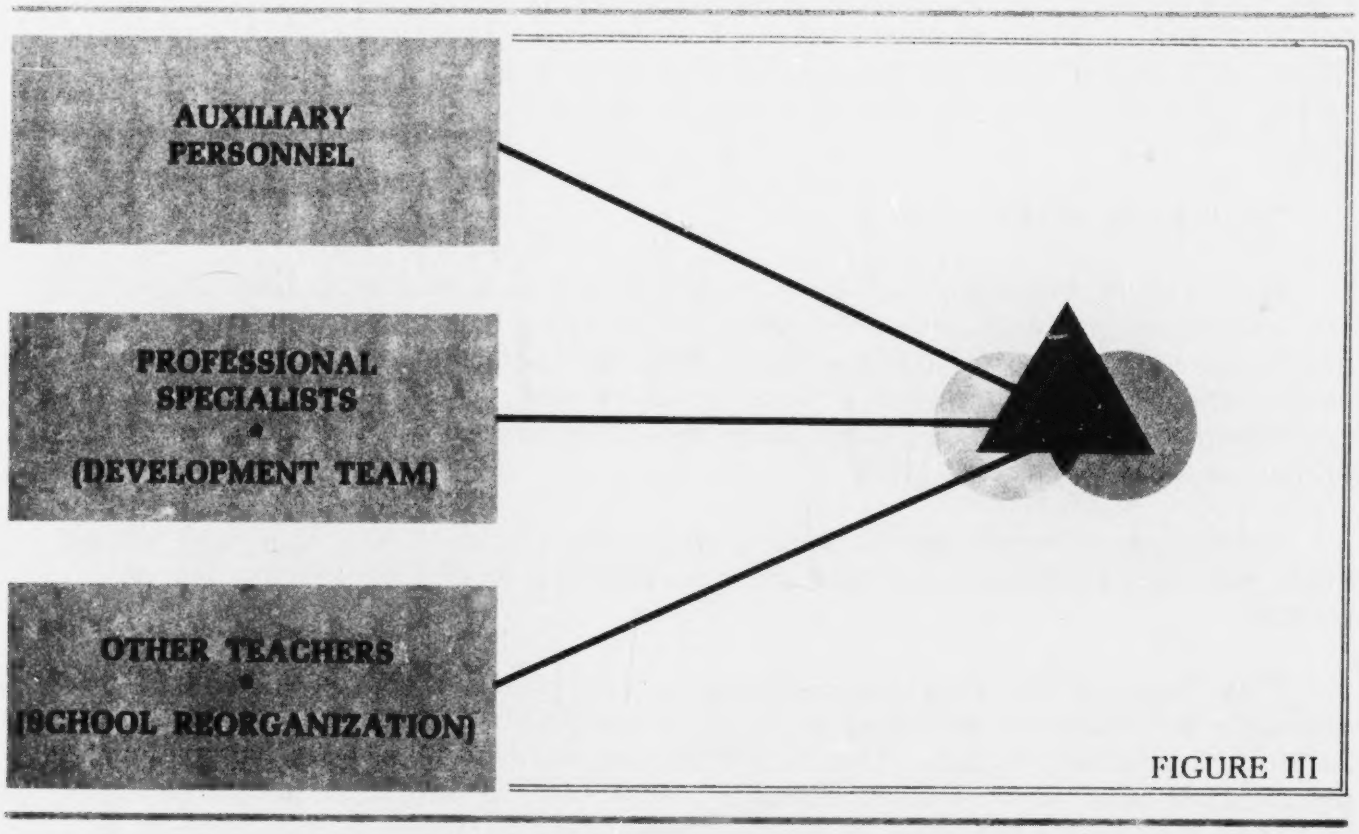
AUXILIARY PERSONNEL
PROFESSIONAL SPECIALISTS
•
(DEVELOPMENT TEAM)
OTHER TEACHERS
•
(SCHOOL REORGANIZATION)

FIGURE III

Auxiliary Personnel (See Figure IV)

I would suggest that we consider four different kinds of auxiliary personnel: instruction assistants, community consultants, clerical aides, and general aides. These general classifications for auxiliary personnel were originally suggested by Trump and Baynham[4] about six years ago. Most of what has been written on this topic since then seems to be consistent with their original idea.

Instruction assistants, according to Trump and Baynham, would do such things as serve as laboratory assistants, evaluate some written work of students, supervise specific out-of-school projects, confer with students about their progress and provide the teachers with reports, and assist with extraclass activities. Many instruction assistants would be college graduates and all of them would have had specialized training for their specific duties.

Community consultants, Trump and Baynham suggest, would be individuals within the community who possess specific competencies in certain fields. These individuals would be called upon to come to the school to make specific presentations or to provide special information. They would make their presentations live to a group of students, and the presentations also could be preserved on film, tape, or video tape for future use.

Clerical and secretarial aides are now becoming more common in schools. They relieve teachers of such nonprofessional tasks as typing, duplicating materials, grading objective tests, keeping records, distributing supplies, and taking attendance.

General aides, Trump suggests, would control and supervise students on the school grounds, in the cafeteria, in the corridors, in the auditorium, and in some extraclass activities. Ordinarily, such aides would be high school graduates employed on a part-time basis.

Other Professional Specialists (See Figure V)

Some schools have organized their school-based professional specialists into development teams--teams of specialists specifically assigned the task of stimulating, for the teaching teams, special projects and programs carefully designed to improve instruction. In a sense, this group assumes the responsibility of providing instructional leadership to the school. It is important to note, however, that these individuals do not work out of the superintendent's office. They are based in

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[4] Trump, J. Lloyd, and Baynham, Dorsey. Focus on Change. Chicago: Rand McNally and Company, 1961. pp. 33-35.

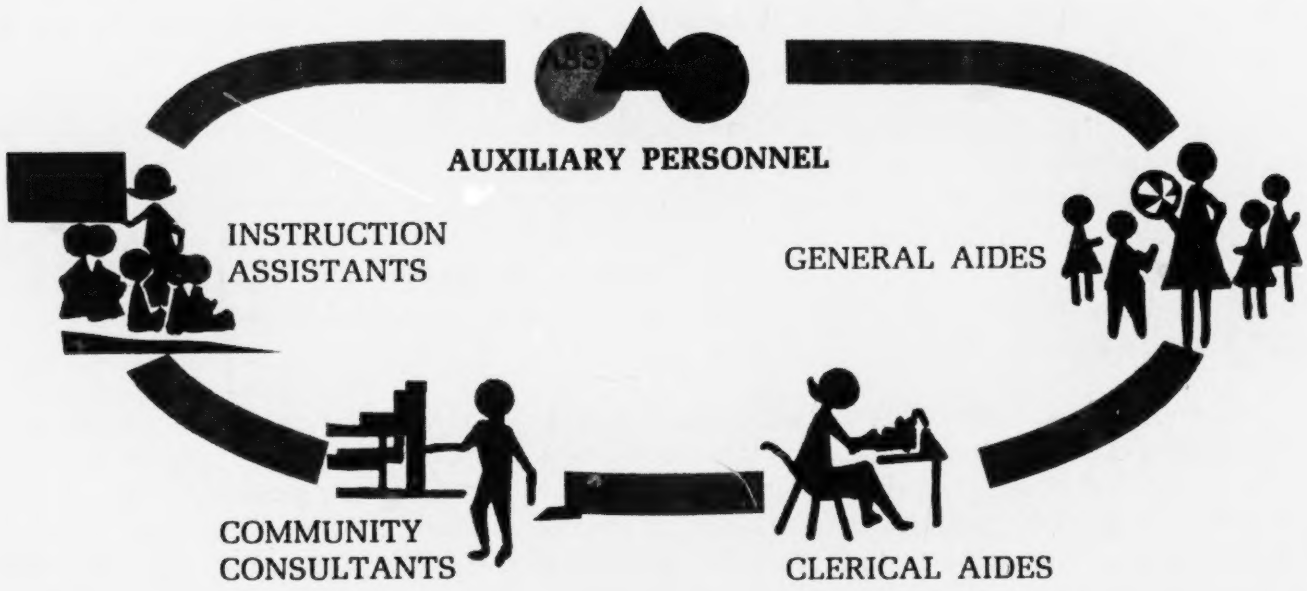
AUXILIARY PERSONNEL
INSTRUCTION ASSISTANTS
GENERAL AIDES
COMMUNITY CONSULTANTS
CLERICAL AIDES

FIGURE IV

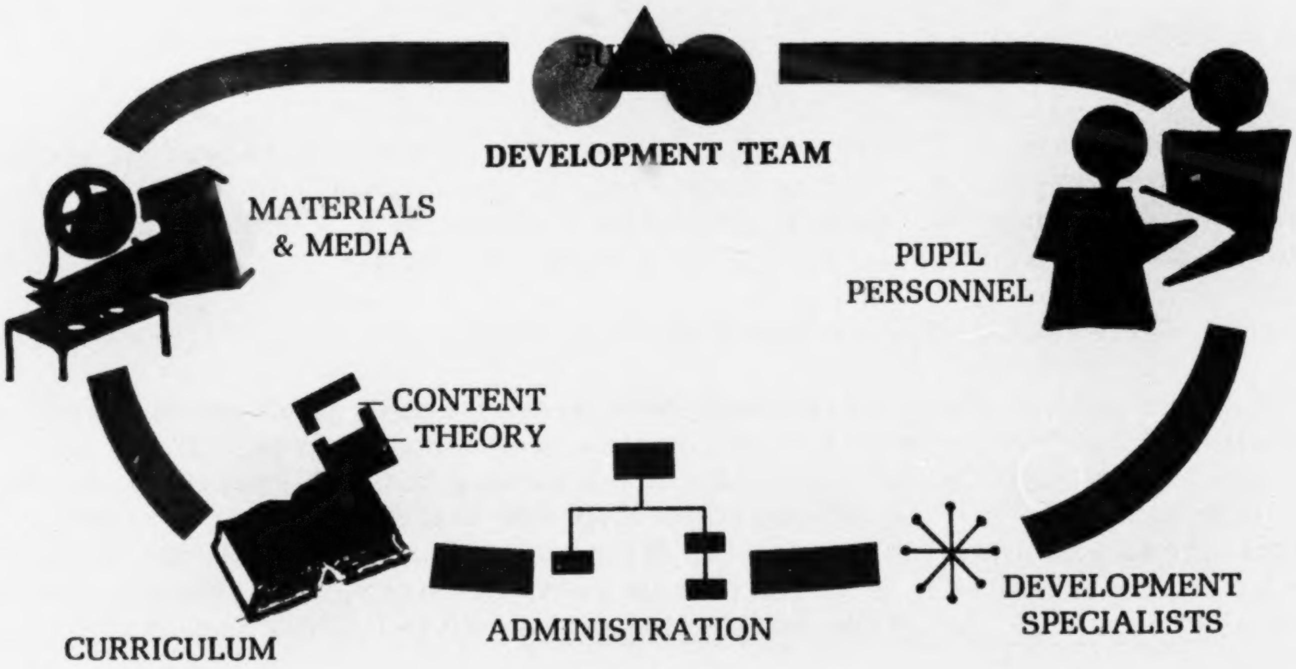
DEVELOPMENT TEAM
MATERIALS & MEDIA
PUPIL PERSONNEL
CONTENT
THEORY
CURRICULUM
ADMINISTRATION
DEVELOPMENT SPECIALISTS

FIGURE V

each school where their services are readily available to the teachers and pupils.

Most of these positions already exist in our schools. Typically, however, school administrators have not provided the school with the kind of organizational framework which will make these talents readily available to teachers.

Materials and media specialists already exist in the person of the librarian and the audiovisual director.

The problem with librarians these days is that they spend too much time in libraries. It is time they began to train others to catalog, process, purchase, and repair books and to supervise students. The librarian should see himself as a specialist in independent study and a specialist in learning materials. As a specialist in independent study, he helps students match their interests to learning materials appropriate to their interests. As a specialist in learning materials, he helps the teaching teams build into every unit of instruction as wide a variety of appropriate materials as possible.

The media specialist has virtually the same job description except that he has specialized in audiovisual materials and equipment, whereas the librarian may be limited in such knowledge. The media specialist usually needs at least a part-time staff artist and a technical assistant if he is to be freed for professional consultation with teachers and pupils.

Specialists in curriculum content and theory exist now, at least on most high school staffs, as department chairmen. Most elementary schools currently have to rely on specialists from the district superintendent's office to work directly with teachers on curriculum.

If our teachers are to be truly professional people, they must be delegated the task of building the curriculum. A teacher should not be a technician implementing someone else's ideas. Rather, he should be a creative professional, organizing the work of others into a flexible pattern which provides for a wide range of individual differences among pupils. Given appropriate support from one or more school-based curriculum specialists, the teaching team can structure curriculum.

Until teachers begin to do this kind of curriculum work, diagnostic and prescriptive teaching will remain a pipe dream.

By the way, the typical high school provides released time to department chairmen equivalent, schoolwide, to from one to two full-time positions. By moving the school from the comparatively inefficient departmental organizational plan to the more efficient divisional and team-teaching plan, most high schools could afford two full-time curriculum specialists who could be members of every teaching team and who could be available to help teachers at all times.

Insofar as elementary schools are concerned, I would recommend that they be built large enough so that school-based consultants can be added to the staff at a reasonable per-pupil cost.

The school administrator is the organizational and communications specialist in the school. He is also the faculty's principal instructional leader and the verbalizer and personifier of the school's educational philosophy. He is the designated leader of the development team, the group that is organized as efficiently as possible to support the teaching teams as they manage the teacher-pupil-materials interrelationship. As a rule, administrators should not make decisions which affect instruction. Their job, rather is to provide an organizational pattern for the school within which teachers can make professional decisions with confidence.

It is the principal's job, as personifier of the philosophy, to build into his school the kind of organizational climate which makes the school a safe place for creative students and teachers. It is his job to see to it that communications lines are kept open and that staff members and students talk to one another regularly about mutual concerns of importance to the institution. It is his job to see that the teachers in the school are not afraid to make important decisions about their jobs because they know what the school stands for. It is his job to see that the school is moving in a direction which everyone understands.

It is not his job to evaluate teachers or teaching. Rather, it is his responsibility to provide faculty members with the kind of professional assistance they need in order to evaluate their own teaching and to initiate improvement procedures on the basis of their evaluations. The teacher evaluation checklist, to be filled out by the principal and turned in to the superintendent four times a year, is as obsolete as the self-contained classroom.

The professional teacher of the future, supported by specialists from the development team, will learn how to base decisions more and more on knowledge and information, less and less on expediency, prejudice, intuition, and pressure. A major responsibility of the principal is to help his staff learn how to make rational decisions on the basis of knowledge and information.

Assisting the principal in this highly complex teacher education task is a research and development specialist. Typically, such specialists do not exist on school faculties today except in a few schools which have received outside funding for special research or development projects. Many districts, of course, hire research and development specialists who work out of the district office. Such individuals, however, are spread much too thin to be of regular assistance to a teaching team.

The school-based development specialist has two major responsibilities:

1. He is the communications link between faculty members who are seeking answers to practical instructional problems and district-level and university-based researchers who have important knowledge applicable to such problems. He assists the faculty in making decisions which are as consistent as possible with what research has to tell us about learning and instruction. He is a translator of research into practice.

2. He is a stimulator of experimental and pilot projects to be initiated by staff members. He helps teaching teams identify problems, state questions in such a way that answers can be found, design evaluative instruments, gather and interpret information about the results of a specific path of action, and base plans for further action on the information thus generated. In short, he is the specialist on action research for the faculty. He helps the faculty move systematically and rationally into innovation. He is the faculty's major protection against irresponsible, superficial innovating which changes the form but not the substance of the instructional program. He is a school-based change agent with the responsibility of leading the faculty into meaningful, educationally sound, carefully planned, and well-evaluated program improvement.

Most schools already have on their staffs one or more pupil personnel specialists. They may currently hold the title of director of guidance, social worker, counselor, school psychologist, or assistant principal in charge of discipline and attendance. At least one of these specialists should be a regular, active member of the school's development team, available on a day-to-day basis to assist the teaching teams with their planning.

The specialist in pupil personnel, as a member of every teaching team, assumes the responsibility of assisting the faculty in organizing units of instruction and curricula which will be appropriate to the needs, interests, and maturity level of the students for which the units of work are intended. He is the principal specialist on the staff regarding the characteristics of students. Without his help, teachers might too often assign inappropriate materials to students. With his help, teachers have a better chance of building units of instruction which stimulate and excite the learners for whom the units are intended.

Also, of course, the pupil personnel specialist can keep the faculty well informed regarding students with special needs and special learning problems. He is the interpreter to the faculty of the kinds of difficulties faced in the school by the bright, highly creative student, the emotionally disturbed, the visually handicapped, and the academically untalented. He is the consistent advocate on the staff of more and better individualization of instruction.

Given this kind of support from school-based professional specialists, even relatively unimaginative faculties can "catch fire," can become excited about their jobs, and can become responsibly innovative.

It is true, of course, that responsible change in a school costs money--money beyond that which is spent to operate the traditional program. But an effective development team costs less than you may think because most of the members are already a part of the school staff.

Every school should have a small development budget--funds earmarked especially to stimulate thoughtful innovation. The staffing plan and expenditure plan for a school going through a period of schoolwide change should not be the same kind of plan that is appropriate to a school dedicated to the status quo. "Retooling expense" is a necessary and legitimate expenditure of the taxpayers' money. If we believe in change, let's not hesitate to spend a little money on it.

Support from Other Teachers(See Figure VI)

The third kind of professional support available to the teaching team is the support of other teachers who are not, perhaps, regularly assigned to the team.

A school designed for maximum utilization of the talents of its staff is a completely reorganized school. It is a school which has not only reorganized personnel but has also reorganized time, space and curriculum.

Reorganization of personnel usually leads the school into some kind of team teaching or cooperative teaching. Two new trends in team teaching might well be mentioned here:

1. The trend toward flexible rather than rigid team membership.
2. The trend toward organizing students into a variety of learning teams.

I cannot go into these two trends in any detail here, but they will bear watching.

Reorganization of time usually involves some variety of flexible scheduling. The most commonly used varieties of flexible scheduling are as follows:

1. The daily-demand schedule--a system whereby a completely new schedule is tailor-made for the school and for each student every day.
2. The block-of-time schedule.
3. The computer-generated modular schedule.
4. Various combinations of the three.

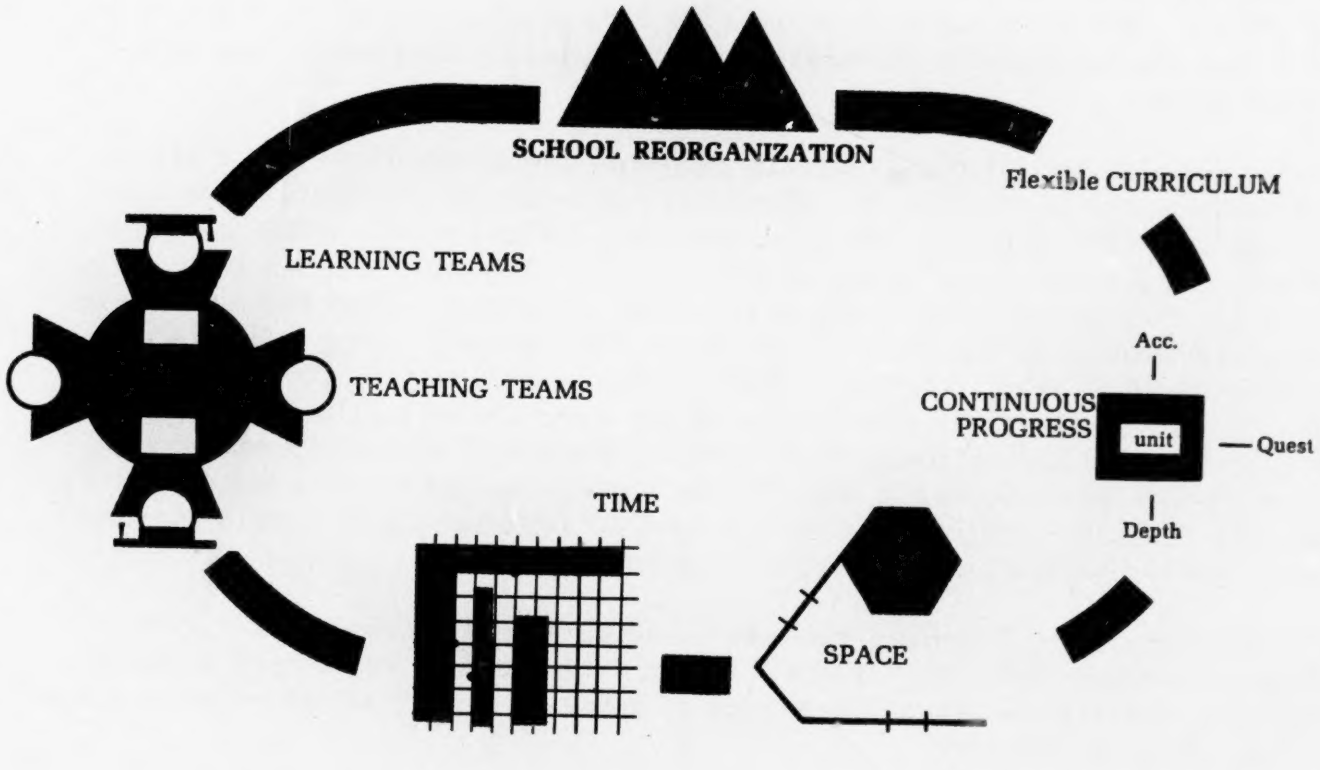
SCHOOL REORGANIZATION
Flexible CURRICULUM
LEARNING TEAMS
TEACHING TEAMS
CONTINUOUS PROGRESS
Acc.
unit
Quest
Depth
TIME
SPACE

FIGURE VI

Reorganization of space typically involves tearing down walls to provide space appropriate for learning laboratories and large-group instruction, adding walls to provide for small seminar rooms and conference rooms, building large multimedia instructional materials and independent study centers, and providing other special-purpose independent study areas in various parts of the building. With a little imagination and a modest amount of money, most existing buildings can be adapted to the new kinds of programs.

Many new schools are being built with broad, open, carpeted, multiuse spaces which facilitate team learning, team teaching, and independent study. Such buildings are usually less expensive and certainly more functional than the obsolete self-contained classroom variety usually built.

Reorganization of materials is perhaps the most difficult of all reorganizations to accomplish. However, a number of schools are succeeding in building flexibility into the curriculum where little existed before. Typically, this is being done by developing modular curricula--curricula composed of individual learning modules. The Nova Schools call these modules "Learning Activities Packages"; some schools call them "Individual Prescription Units"; others call them "Unipacs," a term coined by Gardner Swenson and his associates of the Institute for Development of Educational Activities. Whatever the units may be called, however, the basic idea is the same. An attempt is made to organize the curriculum in such a way that teachers and pupils may exercise well-defined options regarding both pace and content.

Built into each learning module or unit of instruction are carefully designed content options. Thus, it is not necessary for every student to utilize exactly the same material as used by every other student proceeding through the unit.

Progress from one learning module to another is made by the individual or by the learning team on the basis of demonstrated competence rather than on the basis of a predetermined pace appropriate for only some students in a group.

Once competence has been demonstrated to the satisfaction of the teacher, the individual pupil or the learning team may (a) exercise an acceleration option and proceed to another learning module, (b) exercise a depth option and pursue further teacher-planned work on the same or a related topic, or (c) exercise a quest option and pursue a student-planned learning module on the same or a related topic.

The term continuous progress is usually used to designate this type of flexible curriculum.

The kind of school, then, in which personnel, time, space, and curriculum have been carefully and systematically reorganized is a school which provides a setting both for individualizing instruction and for professionalizing teacher.

In this kind of school, teachers can utilize the talents of one another more readily than was formerly possible. This is true because organizational and physical barriers which traditionally have made cooperative planning and teaching very difficult will have been replaced, in the reorganized school, with organizational and physical flexibilities.

In such a school, important decisions about the learning situation which traditionally have been made by administrators, rigid schedules, and thick procedures handbooks can now be made by teachers and students.

Summary

My objective has been to describe three kinds of professional support which the teaching team in the reorganized school might expect to receive: support from auxiliary personnel, from other professional specialists, and from one another. Support from one another is facilitated by the substitution of new organizational flexibilities for traditional organizational rigidities. I have not attempted to talk about individual teachers in conventionally organized schools because I believe strongly that such schools are obsolete and that they should be done away with.

The kind of reorganized school which I have described may, of course, be some time in coming. The forces for mediocrity in our profession are strong and incentives for imaginative innovation are few.

I realize that we are hemmed in by rigidities. Rigid boards of education expect us to build modern educational programs with staffing ratios appropriate only for maintaining the status quo. Rigid state departments of education and accrediting associations get excited if we schedule students for a class of less than 200 minutes a week. Rigid legislatures try to legislate us back into the nineteenth century. Crackpot pressure groups in the community are trying to take over the schools for their own political purposes. Rigid principals too often try to run their schools like military organizations, and rigid teachers teach rigid kids rigid lessons from rigid curricula. The trouble is that rigid teachers never die, they just get promoted and become rigid principals.

These and many related rigidities are quietly at work forcing our schools into remaining the medieval institutions they have become. It is on these and many related rigidities within our profession that teachers, administrators, and other specialists must cooperatively focus their energies and their talents. Overcoming such obstacles will not be easy. Perhaps, however, we have gained from the activities of the Year of the Non-Conference some insights into how we might proceed.

B. Involvement - The Principal's Task

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THE CHANGING ROLE OF THE TEACHER-
HOW DOES IT AFFECT THE ROLE OF THE PRINCIPAL?

Thomas C. Wood

Bigness is surely the centerpiece of the modern American society. Demographers predict the eventual clustering of 95 per cent of our population in several burgeoning metropolises. One-tenth of all counties in the United States are growing larger; nine-tenths are becoming smaller. The corollary to these circumstances is legislative insistence that our school districts be reorganized to encompass more children and by more territory. Such reorganization increases not only the number of people involved in intermediate administration but also the size of educational facilities.

Depersonalization

Regardless of the benefits that accrue from this sort of reorganization, the character of the affected institutions is inclined to become more impersonal just as the nature of the metropolis in which many of these institutions function is impersonal. For the individual, this resulting anonymity can be stifling and frightening. In the large school district, as in the large city, people hunger for someone to talk with them, someone to listen to them, and someone to work with them. These individuals are seeking recognition as individuals. When the frustrations of big city and big district aloneness become unbearable, these people, these professional teachers, become militant in their demands to have more to say in the management of their professional affairs. They want to take part in fixing standards for their professional behavior and to enjoy greater involvement in decision making which directly affects the operation of their classrooms.

I think the urban teacher searches for, and sometimes finds, a fulfillment on the job which his family, church, and community no longer provide him. He seeks within the profession for a personal liberation, for some basis for his existence. And the job may indeed give him a meaning for life that he cannot find elsewhere.

Yet, even those for whom urbanization is no problem find that the affliction which plagues their big city colleagues is highly contagious. They develop a dissatisfaction with perennial professional adolescence. As a result, a rural or suburban teacher has frequently assumed the aggressive posture of his colleagues albeit with some awkwardness and lack of understanding. He desires what he imagines is the fruit of the labor of his big city friends. And he intends to achieve it, properly or improperly, by employing the same kind of tools

A Modest Revolution

This kind of revolution among practitioners of education was perhaps predictable. It emerges as a companion to the technical, economic, political, and social revolution that is taking place in this country. We feel the impact of the space age and automation; we experience the challenge of surplus and of leisure time as opposed to the problems of production; and we observe the shift in political emphasis toward greater centralization and toward equality in representation. We have some stumbling but determined efforts to obtain social mobility. In addition, we are witnessing a substantive campaign for world peace, as well as experiencing some of the excesses of that campaign.

Those who minister to the educational needs of what will soon be one-third of this nation's population will not be denied the heady wine which accompanies involvement in necessary change. The organizational tinkering which is going on behind the mask of innovation has been a poor substitute for the real medicine needed to furnish energy for our lethargic profession. Important though considerations or organizational readjustment are, multi-grade systems, nongraded plans, team teaching, mandated programs in foreign language, new math, science, and others tend to make a fetish of scheduling and specialization. They will not replace the satisfaction that all professionals must have, and that is in a redefinition of basic goals.

The Intimidated Principal

The beleaguered administrator is often an unwitting and unwilling contributor to the militancy and unrest of the classroom teacher. He operates in an authoritarian institution which is frequently hostile to freedom and to the development of something to which we all profess allegience--crucial individual differences. The challenge for the administrator is to discard that which, although proved archaic and vestigial, he sometimes clings to--paternalism. Threatened by imaginative and creative teachers in the classroom, a disconsolate minority of his group hides behind a welter of regulations and rigid programing devices that only increases the suspicion and misunderstanding on the part of already disgruntled co-workers. Feeling the pressure of teacher demands and experiencing occasional clashes with over-eager representatives of teacher organizations, nervous administrators may have some understandable lack of enthusiasm for solving the basic problems behind the militancy. And often they are disposed to cry out plaintively for the "good old days."

What are the factors that cause what appears to be division between teachers and administrators? One is teacher inclination to mouth a fear of administrator domination and intimidation. Another is the administrator clutching at a medieval notion that people, rather than programs, need to be administered. And still another is the conviction, shared by teachers and supervisors, that lay boards are going to capriciously call down a plague on both their houses. The public may look with a jaundiced eye at all of them.

The Paraprofessional

The intrusion of certain conditions peculiar to the contemporary scene also deserves examination. The increased complexity of our society has been accompanied by a massive infusion of federal monies and state programs for its use. Coupled with this is the attention being given the culturally deprived through programs which demand additional personnel in greater numbers. With the reservoir of qualified and credentialled teachers already dangerously low and with limited numbers of prospective teachers now in training, those responsible for personnel are turning to qualified laymen in the community to serve as aides and special resource people. This has heralded the development of a cadre of paraprofessionals. As this new force is assimilated and trained, classroom teachers are assuming--and properly so--much of the responsibility for its supervision. Together the credentialled teacher and the paraprofessional are exploring avenues for the most effective employment of lay personnel. In the meanwhile, the professional teacher is discovering the need for cultivating the skills necessary for supervision of other personnel. This new circumstance is added to existing programs, such as foreign language in the elementary school, which demand specialists in the classroom.

New programs and new personnel of a different order give rise to two new conditions:

- The advent of additional stratification of those responsible for instruction in the public schools.

- A greater blurring of the lines between that which formerly constituted teaching and that which was essentially supervision. Who is management and who is labor?

An Instructional Leader?

School administrators, also, are confronted with the necessity for a reevluation of role. There are those who would consign administrators to a management function, remanding to teachers and department heads and other supervisory personnel the task of instructional leadership. This tidy delineation would satisfy the compartmental minds of those who cannot accommodate diversity in role. They have called upon principals to state their position as administrators and to classify themselves as either education or management oriented. In some large cities, principals have done so and have allied themselves with the board of education in an almost exclusively managerial capacity. This alignment, however, has created no real exodus from the problem maze in which the metropolitan school district finds itself.

This calls for alignment on one side or the other, particularly for the elementary principal who has long imagined himself to be the instructional leader and along with his teachers to be diligently engaged in improving the instructional program.

In reality, the elementary principal in most fast-growing suburban districts has absorbed--with an understaffed district office--obligations which, in big city districts, are satisfied primarily by intermediate administration and supervision. First at the secondary level and more recently at the elementary level, this involvement in managerial functions and increased classroom teacher specialization have forced the administrator to act in a fashion disparate from his interest in instruction per se.

While the elementary principal may be experiencing more activity, if not interest, in the administrative aspects of his position, his relationship to teachers remains a close one. Unlike the secondary school principal who is apt to have a larger administrative and office staff, the elementary principal continues to be close to teachers and to children. In times of conflict, he will ally himself more often with the teachers than with the central office personnel.

Beyond unrest and so-called militancy, the essential features of the teacher's change in role are not yet clearly identified and defined. The teacher has only begun to find his way through the jungle of additional responsibility which his negotiating team would have for him. He has not yet gone much beyond a more sophisticated instrumentality for making salary demands. The truly professional kinds of decisions which he would make in terms of securing the material for his work and bringing about curriculum innovation have only begun. But this trend offers administrators a new role in responsibility to provide leadership for the terribly exciting potential residing in this teacher force. It is to be hoped that they accept the new role and quickly assume it.

A Philosophical Shift

It is in the realm of attitude change and philosophical reorientation that the most effective tools await discovery. At the outset, we have to face some cold, hard facts. The trend toward teachers assuming additional responsibility is not going to be altered. The fact is, if the education profession is going to be a positive cultural force in our society, principals must unite with teachers and help make "militancy" a responsible accrual of strength.

School professionals have been plagued by something less than courage. They have allowed decision making about educational policy to be wrested from them and have given these matters over to professional politicians and carefully organized axe grinders. Teachers and administrators would do well to reaffirm their real purpose. Together, they can be enthusiastic and energetic and honestly militant about it. Identification of this purpose involves the simple admission that the task is to make positive changes in the behavior of young people and not solely to teach subject matter. Educators have a strong social purpose, and past experience must not prohibit them from taking into account the social relevance of the school. Subject matter is their tool; sharpened, it is their first weapon in the defeat of ignorance and poverty. Regarded otherwise, subject matter is a two-edged sword that will turn against them if, indeed, it has not already done so.

I think, next, that administrators have to help themselves and teachers throw off completely the slave psychology that has dominated their minds since the beginning of time. They have to teach faculties, as they learn it themselves, to stand on their own feet and win for their ideas the support of their colleagues and the masses of the people. The administrator's problem is to achieve competence, and this is no more critical for teachers than for administrators.

Emerging from this, I think, are some specific trends in elementary education.

The specialists. First, there is a growing specialization among school personnel which reflects the knowledge explosion in many of the disciplines. There is also an awareness that there have to be many kinds of competence to make education effective and efficient for young people. There are going to be more specialists in such areas as reading, mathematics, educational psychology, and physical therapy. The appearance of program design engineers and learning analysts, particularly at the district level, will add to this kind of specialization; research by people particularly expert in the kind of environment which affects learning will very likely diffuse elementary school education and extend it to include more generally pre-school programs and community resources at large. Consequently, the elementary administrator will find it impossible to know as much as his staff knows in the various fields of their competence and will be ill-advised to attempt authoritarian or capricious supervision. Instead, his task will be the critical one of developing the chemical mix of educational elements; personalities, skills, materials, and programs that are uniquely needed in his school.

Tradition is out. Another significant trend indicates that these specialists are going to be far less responsive to being administered by a line officer and far more sensitive to internalized norms and the authority of competence. In dealing with these kinds of expert personnel, an administrator who attempts to give direction in areas in which he is not perceived as totally competent may encounter substantial resistance. The standards of performance are not going to be maintained by the traditional rules and methods of supervision but by the sensitivity and creativity of an administrator who will depend upon expectations of a collegial sort. As a matter of fact, fewer and fewer teachers look presently to administrators or district supervisors for assistance but rather seek help from fellow-teachers and from teachers at the college level. Teachers and their administrators will be held accountable for outcomes assessed against previously and cooperatively established goals. Evaluation by characteristic, an archaic notion at best, will be replaced by the judgment of peers organized in cooperative teams and through mechanisms instituted by professional associations.

The learning process. As professionals focus on the learning process, as opposed to the teaching process, there is going to be a greater and a natural demand for more autonomy by individuals and small groups within the school organizations. This specialization and small-group development does not infer departmentalization or team teaching, per se, but rather the application of skills in discrete ways and as a part of flexible, cooperative teams.

Youngsters must no longer be subjected to the simple application or input of information. Instead, they need to develop more of the attitudes and skills of inquiry. Teachers can no longer coerce them by lecture or by the imposition of the gadgetry and machinery of education. They will have to develop situations that are the touchstones to self-directed inquiry, creative problem solving, and decision making based upon the evaluation of alternatives and consequences. These situations must literally involve students in their own programing. They should reinforce the pupil's curiosity and desire for inquiry. If the teacher is to capitalize on these great opportunities, he must possess great sensitivity, have carefully designed yet adaptable programs, and be a tactical master in their application. This will automatically eliminate the concept of the principal as a super-teacher or, in the traditional sense, the instructional leader able to solve any classroom emergency with a solution taken from a knapsack of appropriate tricks. The increased complexity of American education against the backdrop that we have previously described precludes the notion that the principal is able to teach virtually anything in the curriculum at the drop of a hat and to do it better than anyone else in the school. I think that there are many greater opportunities for principals to be coordinators of these specialists, responsible for their selection, assignment, and the maintenance of a climate conducive to their high performance.

Diversity is the key. There is a prevailing idea that schools simply do not have identical purposes and that their diversity of objectives demands all types of approaches depending on the cultural backgrounds and civic and community relationships and circumstances. Superintendents should no longer be able to send out a directive for an entire school district--a directive which dictates how many monetary and personnel units will be available for given youngsters at given grade levels at given schools. They must consider how situations differ, as well as which process will best identify the financial and staff support required. As principals come to have more highly trained people at their disposal, there is going to be a decentralization at the local building level in order that principals may adapt more easily to the demand for designing an educational program for specific purposes. Consequently, building administrators will be more carefully selected for their specific skills in managing personnel, talents, materials, finances, and the existing environment in which they will function. Principals will have access to analytic techniques that will make it possible to get a systematic feedback of the consequences of their strategies and hold them accountable for results. They will, then, have a budget which they should be free to apportion, spending more or less for certain materials or services, depending upon their decision about what is most appropriate.

Differentiation. Finally, there is or should be another trend--a trend toward differentiation in the roles of all school personnel. This need for greater differentiation is based on a number of developing factors:

- The increase in specialization among all components of a school district

- The increased number of services the central offices provide individual schools

- The more extensive influence the schools have on the pupil's socialization and total environment

- The accelerating reorganization of school districts.

This differentiation, in turn, suggests that the bureaucratic tendencies of complex organizational forms can intrude upon and intimidate teachers who are unreceptive to the authority of office and more receptive to that of competence and expertise. Therefore, as natural conflicts arise, one of the responsibilities of the administrator will be to insure that the total working environment for teachers is optimum. He will have to assume leadership with teachers in developing sensitive and intelligent machinery and policies to mediate disputes about salaries, class size, status relative to assignment, preparation time, and so forth. These must be developed in such a fashion as to fit the special needs, aspirations, and problems of the teaching force. Principals must realize that teachers should be allowed to participate in policy making. The complexity of contemporary educational problems demands that the delegation of authority be accomplished effectively and efficiently. The superintendent and his administrative staff, de facto, now share authority with the board in this matter of policy making and may also, de facto, share their authority with teachers and their organizational representatives. It is an entirely specious argument that school boards and administrators cannot enter into such arrangements, if not formal agreements, with teachers without illegally relinquishing their own authority. The necessary humanizing and personalizing of school systems is going to demand strong and meaningful teacher involvement, not just the "carrots" of paper programs that have been historically held out to them. These teachers are going to have to be involved in all of the determinations which bear on and affect the conditions and circumstances under which they teach and children learn.

A Strategist

In summary, the basic task of the school principal has not undergone any great change, nor is it likely to. It remains his basic responsibility to define within a district framework the instructional program, bring together and allocate the resources--human and material--to achieve cooperatively described objectives, and to establish an organization appropriate to those ends. What has changed is the environment in which he operates. New demands on the schools from a society in process and with a strong social purpose dictate that he adopt a style of leadership appropriate to these demands. He must become literally a manager of change as well as an instructional strategist. As teaching is an art when performance is optimum, so the bringing together of a given number of people for the achievement of a stated purpose is leadership and administration in the most creative and productive sense. Leadership, finally and most simply stated, is the dangerous, exciting, and supremely rewarding task of building a climate of freedom in which potentially productive human beings can grow and develop in varied and diverse ways.

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THE AMERICAN PRINCIPAL TOMORROW

Harold J. McNally

"In the beginning the world was so made," said Cicero, "that certain signs come before certain events." Our only clues to what the principalship will be like in the schools of unborn tomorrow are embedded in dead yesterday, and in the exciting and perplexing turmoil of today. Let us highlight some significant "signs" from the past and the present, therefore, which may help in auguring the uncertain future.

Prior to World War II, the great majority of elementary schools enrolled fewer than 300 pupils. These small schools were organized into graded classrooms in which "generalist teachers" taught practically all the subjects. The role expected of the principal in these small schools was that of supervisor-manager. Although he was responsible for handling the daily routines, details, and paper work of the school, it was generally agreed that his major responsibility was the classroom supervision of teachers. Studies of the past two decades indicate little change from the conclusion of a 1948 nationwide study of the principalship that, "Clearly, if supervising principals had a free hand, they would really become supervising principals. They would trim their administrative and clerical duties... and give more time to the improvement of instruction and community leadership."[1]

It is our thesis that such a supervision-centered conception of the principalship has become inappropriate and outdated, particularly in large metropolitan and centralized rural schools. Unless a conception more appropriate to our needs and consistent with reality becomes prevalent in the near future, the building principal may well be relegated

[1] National Education Association, Department of Elementary School Principals. The Elementary School Principalship--Today and Tomorrow. Twenty-Seventh Yearbook. Washington, D. C.: the Department, 1948. p. 90; See also Dean, Stuart E. Elementary School Administration and Organization. U. S. Department of Health, Education, and Welfare, Office of Education. Washington, D. C.: Government Printing Office, 1960, p. 99; See also Trask, Anne E. "Principals and Supervision: Dilemmas and Solutions." Administrator's Notebook. Chicago: Midwest Administration Center, The University of Chicago, December 1964.

to the role of managerial caretaker, who is given little part in the decision-making process on important professional affairs.

On the other hand, it is possible to define the principal's role as that of a "perceptive generalist" who is the professional administrative leader of a group of fellow professionals. Instead of conforming to the image of the specialist in teaching techniques who is supervisor-manager of a group of quasi-professional schoolmarms, he can be, or become, the person to whom the professional teaching staff looks for leadership on coordinating and facilitating the school's professional program. This does not in any way imply that the principal should divorce himself from responsibility for classroom instruction or for the nature of the educational program within his school unit. These matters should be as much in the forefront of his concern as ever. It does imply, however, that his role behavior--what the principal actually does as a principal--should be sharply different from that which we have traditionally expected of principals.

In this article, therefore, we shall discuss some changes now under way in education and society and what they seem to imply for the role characteristics of American principals in the 1980's. Such a "tomorrow" is near enough to keep our conjectures out of the realm of science fiction, but distant enough to permit the flowering of some developments whose germination has become discernible since the early 1950's, and which are now in bud.

Changes Influencing the Principalship

The changes that are relevant to our problem have been discussed extensively in the news media and in professional literature. Hence, they will be alluded to only briefly here. Important among them are significant changes in the preparation, composition, and attitudes of the instructional staff personnel in our schools. Particularly noteworthy is the sudden, massive, and effective insistence of teachers on their participation in major educational decision making. There have been basic changes in curriculum and methods, in the burgeoning educational technology, in school organization and design, and in the federal-state-local relationship in the financing, planning, and modification of the educational program. Urbanization and school district reorganization have increased the size of school districts; reorganization has caused their number to diminish dramatically.[2]

The size of the average elementary school has increased steadily as a result of both this and the post-World War II birth rates. Most elementary schools are now a part of larger administrative units, financially able to provide supervisory and specialist resources in greater quantity and variety than in the past. The massive increase in the federal government's participation in educational financing has contributed substantially to this growth in the numbers of specialists, and their numbers will continue to grow in the years ahead.

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[2] From the 127,108 school districts existing in 1930-33, the number had shrunk to 21,704 by 1967-68. See Historical Statistics of the United States, Colonial Times to 1957. Washington, D. C.: U. S. Bureau of the Census, 1960. p.694.

Accompanying urbanization has been the influx to the cities of economically poor minority groups, and the simultaneous "middle-class flight to the suburbs." Both of these developments have intensified the problems of the spreading "blighted areas" of our inner cities, and have resulted in federally spearheaded programs that involve the schools prominently in the drive to help minority groups overcome the factors and forces that have blocked their access to equal status and participation in our national life.

Further changes are now in progress, which are in large measure an extention of those of the near and more distant past. The accelerating trend toward specialization and differentiation of teacher roles (as embodied in team teaching and teacher aide plans, for example) is likely to alter considerably the organizational structure of the staff of the local school building unit. This trend implies significant shifts in the authority relationships within the school, and a changed distribution of decision-making roles and functions. Such changes have urgent implications for the principal's functioning.[3]

Waiting in the wings there is yet another major factor about to make its entrance on the educational stage; in a few systems it is already here. The electronic computer has revolutionized information processing and has opened awesome vistas for research and development in practically all fields of endeavor. For example, Max Goldberg says, "Just one of the technological innovations--the computer--realistically is claimed to be more revolutionary than the wheel, the printing press, the steam engine, the electric motor, or atomic energy."[4] It is already clear that computer-assisted instruction and computer applications to a wide variety of administrative problems will soon be an integral part of our schools.

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[3] See, for example, Allen, Dwight W. "A Differentiated Staff: Putting Teacher Talent to Work." Occasional Papers, No. 1. Washington, D. C.: National Education Association, National Commission on Teacher Education and Professional Standards, December 1967. See also Rand, M. J., and English, F. "Towards a Differentiated Teaching Staff. Phi Delta Kappan 44:264-468; January 1968. See also Hedges, William D. "Differentiated Teaching Responsibilities in the Elementary School. National Elementary Principal 47:48-54; September 1967. See also Klausmeier, H. J., and Quilling, M.R. "Alternative School Organization." Wisconsin Journal of Education 100:9-11; February 1968.

[4] Goldberg, Maxwell. "...And See It Whole." In William W. Brickman and Stanley Lehrer (editors), Automation, Education and Human Values. New York: School and Society Books, 1966. p. 343.

One other social invention is worth noting. This is the emergence of "systems analysis," or "operations analysis," in complex organizations. As highly sophisticated mechanical systems were designed and put into operation in engineering enterprises (such as the space program), the need emerged for a person who could analyze the relationship and functioning of increased numbers of specialists, and forestall mismatches and failures arising from their relatively independent operation. Students of organizations-as-social-systems have adapted this concept to the planning function in organizations, applying the basic concepts of systems analysis to "inventing the future." Max Ways makes an intriguingly extravagant prediction of the impact of this development.

> The further advance of this new style is the most significant prediction that can be made about the next ten years. By 1977 this new way of dealing with the future will be recognized at home and abroad as a salient American characteristic. Compared to this development, the argument between the liberals and the conservatives, while it will retain a certain atavistic fascination, will come to seem about as relevant to the main proceedings as a fist-fight in the grandstand during a tense inning of a World Series game.[5]

The systems analyst is a generalist. He is well versed in the nature and problems of each of the specialized operations within the organization, although he may not be a specialist in any of them. It is his task to see the organization whole, to see the "big picture" and the relationship of its component parts. It is his further task to suggest how their relationships can be coordinated so as best to achieve the organization's objectives. In "future planning," systems analysis techniques are applied to planning for the future, so that an organization may lead changes rather than merely adapt to them. This would indeed be a change for education!

Implications for Educational Leadership

The challenge to leadership that is posed by the changes occurring in society and education is an imposing one, indeed. The big questions we now face are: Who will rise to the challenge? Who will provide the kind of leadership called for as schools reach new peaks of size, complexity, sophistication, and quality? Can the institution of the American elementary school principalship shake off its traditional image of "head teachership," and develop the characteristics needed in the schools that are emerging from the past two decades of educational ferment? Will principals take the easy fork in the road that leads to the role of "manager of administrivia?" Will the principal become the person who handles the day-to-day routines, the chores, the paperwork, the vexing daily problems in the school, while the major decisions on policy and operation of the educational program of the building are made by teachers? Or will principals, central office administrators, and graduate departments of educational administration take the steps that are required for principals to become respected professional administrative leaders who work closely *with* their professional staffs in shaping educational policy and practice?

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[5] Ways, Max. "The Road to 1977," Fortune 77: 94: January 1967.

Let us be optimistic and anticipate that principals will accept the challenge and will equip themselves to exercise the role of professional administrative leader of a professional staff that numbers of principals already perform well. What are the components of such a role? Although our crystal ball is cracked and characteristically murky, today's developments do enable us to identify some of the role-requirements of administrative leadership in the schools of tomorrow.

Goal-setting. In the midst of the social and educational ferment that bids fair to become our way of life, it is most important that a school's staff redefine and affirm the objectives of their professional endeavors. One of the major functions of administration is to provide leadership in this process.[6] All else in an organization stems from its purpose. To the degree that the staff are committed to the same goals, and that the personal and professional goals of each of them are consistent with the over-all objectives of the school, to that degree will the school's effectiveness be maximized.

Heretofore, the definition of general and specific objectives for the school too often has been done in a haphazard, casual, and sporadic manner. In too many cases, teachers have not been included in the process. The new stance of teachers' organizations heralds the imminent demise of this concept. Through their organizations, teachers are now successfully negotiating their participation in a broad range of educational decision making. Lieberman and Moskow quote the President of the AFT as saying, "We would place no limit on the scope of negotiations... anything having to do with the operation of the schools is a matter for professional concern, and should thus be subject to collective bargaining."[7] For the NEA one of their attorney-consultants says, "Indeed, it is precisely at this point--in the making of difficult judgments on budgetary allocations, as well as assigning priorities to the immediate and future needs of the total educational program--that the professional associations... can give maximum assistance to the overworked and under-appreciated members of a lay school board."[8]

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[6] Harlow, James G. "Purpose-Defining: the Central Function of the Administrator." In J. A. Culbertson and S. P. Hencley (editors), *Preparing Administrators: New Perspectives*. Columbus, Ohio: University Council for Educational Administration, 1962. pp. 61-71.

[7] Lieberman, M., and Moskow, M. H. *Collective Negotiations for Teachers*. Chicago: Rand McNally and Co., 1966. p. 226.

Obviously, it is ridiculous to expect that all such decisions should be negotiated. What is negotiated is the right of teachers to share in the decision making, and the processes by which that right shall be exercised. It is clear that teachers today expect increasingly that their role in important school decision making shall be equal to (even, perhaps "a little more equal than"!) that of administrators. Hence, the 1980's principal should have both the temperament and skills required to work with his staff in deciding and clarifying the outcomes that their professional efforts shall be designed to achieve. There are, of course, additional functional reasons why such a way of working is desirable.

Planning and initiating. School staffs are being faced increasingly with choices concerning curriculum; proposals for new methods; new instructionsl materials--"textbooks, systems, kits,"--that themselves represent changes in instructional methods; new forms of organization of staff and pupils, designed to supplant graded organization of self-contained classrooms. To avoid a bandwagon, impulsive, patchwork approach to change, leaders of the future will employ variations of "systems analysis" in the deliberate planning of change. The goal-defining alluded to above is in integral and initial part of such an approach.

Principals of the 1980's will need to become capable as leaders in such a planning program at the local school building unit level and as members of the school system's planning team (which will include teachers, of course). If they do not, others will be all too ready to assume this role, relegating the principal to a minor place in the planning and development of the school's program.

Coordinating and facilitating. As schools grow in size and complexity, and as the staff becomes increasingly differentiated and specialized, the need for what Erickson has called "strategic coordination" becomes imperative.[9] For example, Frazier identifies the following kinds of specialized teacher roles that already exist in a number of schools: regular teacher, team leader, team member, enrichment teacher, reading improvement teacher, mathematics improvement teacher, elementary counselor, nurse, physician, dentist, visiting teacher, and psychologist. He refers also to "general and special consultants" who are available from a regional service center.[10] We can add to these the programmers, engineers, and technicians who will accompany the new educational hardware that will be a common part of the education scene in the 1980's.

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[8] Woolett, D. H. Professional Negotiations: What Is This Thing? Cited in Lieberman and Moskow, *op. cit.*, p. 225. (Italics added.)

[9] Erickson, Donald A. "Changes in the Principalship: Cause for Jubilation or Despair?" *National Elementary Principal* 44:19; April, 1965.

It is in respect to these developments that the difference in the principal's instructional leadership role can be made most clear. In the emerging scene, the principal cannot pretend to the omniscience and competence-in-all-areas that would be required for him to act as the didactic supervisor of each of these specialists. Therefore, instead of trying personally to provide a teacher with supervisory or consultative assistance in which he has only the limited competence of a generalist, the principal will use the prerogatives of his position to "zero in" the specialist who is professionally trained to provide the specific kind of assistance that the teacher requires.

Nor does this mean that the principal will not visit classrooms. Obviously, if he is to be able to perceive "the big picture" and to identify where resource assistance needs to be deployed, he will want to observe the program in operation at all levels of the school. However, this does not require the intensive type of classroom observation that has been implied in supervision-centered definitions of the principal's role. Furthermore, much of the information the principal needs can be provided him by others.

In addition to securing, deploying, and coordinating resources, the principal of tomorrow will *facilitate* the undertakings planned by and with the professional staff. He *will initiate* the formation of planning and action committees, arrange for the administrative clearances that may be required for action, and at times provide leadership in helping groups achieve their objectives. Someone has to serve these functions, and they become increasingly important as school units progress in complexity and size toward the sophisticated schools of the 1980's.

Mediating Conflict. Closely related to the coordinating function is that of resolving various types of conflict. Argyris and Getzels have both proposed that conflict between the organization and the individuals who work in it is indigenous to organizations.[11] A large part of the task

Frazier, Alexander, editor. *The New Elementary School.* Washington, D. C. Association for Supervision and Curriculum Development, NEA, and Department of Elementary School Principals, NEA, 1968, p. 100.

Argyris, Chris. *Personality and Organization.* New York: Harper and Brothers, 1957. See also Getzels, Jacob W., and Guba, Egon G. "Social Behavior and the Administrative Process." *School Review* 45: 423-41; Winter 1957.

of administration, they maintain, is that of reducing that conflict, of developing "congruence" between the personalities and needs of the individuals, on the one hand, and the role performance and behavior expected of them by the organization, on the other. Part of this is achieved in the process of mutual goal-setting, alluded to earlier. In general, however, it depends largely on the "administrative style" of the administrator, including his human relations, and the respect for and confidence in his leadership which is developed by the kind of person he is, his competence as an educator and as a leader, and in the effectiveness with which he is perceived to be able to help the group achieve its goal.[12]

It is inevitable that other conflicts will arise in the increasingly complex schools of tomorrow, even more than arise in the schools of today. There will be conflicts engendered among the wide variety of specialists, those arising between the school and the school system, and conflicts between the pupils and the staff. All of them will call for competence in conflict resolution.

Evaluating. Finally, the principal of the 1980's will be called on to utilize techniques of evaluation far more deliberately and consistently than ever before in our schools. With few exceptions, evaluation of the functioning and effectiveness of the educational programs in school building units has been casual and sporadic at best; in all too many schools, it has been practically non-existent. With the advent of computers, systems analysis and vastly increased educational expenditures, there will arise a demand for the establishment of continuous feedback of information on the organizational effectiveness of schools. More rigorous evaluation of new federally financed programs is already being called for, and the new electronics marvels hold the promise of making effectiveness a feasible objective. In the years ahead, therefore, principals will become far better acquainted with the skills and strategies of establishing and conducting programs that continuously evaluate various aspects of a school's operation.

Community Relationships

Exercise of the foregoing administrative "process roles" will not be confined to the school itself in the community schools of the 1980's. The problems of urban education overflow the school's walls and relate to all segments of the community. Compensatory education programs in our cities' inner cores clearly emphasize two bedrock realities. First, the early childhood years are far more critical in determining a human being's subsequent development than most of us have realized. We are learning, therefore, that parent education and involvement are essential to the program of early childhood education. Second, many community agencies have an interest in the growth and welfare of children. Compensatory education programs have taught us that it is urgently important that the resources of these agencies and of the schools be coordinated so that they complement one another and the school effectively in fostering the optimum growth of the community's children and youth. Looking ahead to the 1980's, Brickell forsees "a wholly new pattern of interagency cooperation between schools and other public institutions."[13]

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[12] Browne, C. G., and Cohn, T. S. (editors). The Study of Leadership. Danville, Ill.: The Interstate Printers and Publishers, 1958, pp. 184-95. See also March, J. G., and Simon, H. A. Organizations. New York: John Wiley and Sons, 1958. Chapter 5.

Obviously, this will require understanding and skill on the part of school principals. An important facet of the principal's role will be developing and maintaining close school-community working relationships. This has been urged on principals in the past, but the need in our new "old-urban" centers is becoming transcendent.

Needed: the Scholar-Generalist

To exercise the type of administrative leadership implied by the foregoing, principals of the 1980's will need to know more and different things than most of them now do. A principal of a 1980's school will need to be a scholar in the field of administration and leadership, as well as a competent administrative leader. He will not need to be as competent as we have traditionally expected in the more technical aspects of teaching method, classroom management, and instructional supervision. On the other hand, he will undoubtedly be expected to know considerably more than his 1960's counterpart in the fields of the behavioral sciences, such as social psychology, sociology, and political science. The areas of urban sociology and cultural anthropology will be of critical relevance to the urban school he administers. In addition, he will have learned much about organizational theory and operation and the practical aspects of administrative behavior that were not even taught in the preparation programs of just a few years earlier or that were taught in "recipe" fashion.

With such a background, coupled with his basic preparation in the more usual aspects of education, the principal will be equipped to exercise the demanding role of the administrative leader of a professional group. He will be the perceptive generalist who helps his colleagues define and redefine the goals of the school, who coordinates and facilitates their efforts in the achievement of those goals, who provide leadership in fostering desirable change, who is looked to for leadership in the resolution of the conflicts that beset every human organization, who provides community educational leadership, and who helps the professional staff and is helped by them to develop deep commitment to and pride in the crucially important enterprise in which they are all engaged.

Some Things Don't Change

We can see, then, that the principal of the future will indeed be different in many respects. But I would maintain that there are some expectations that should not change. The principal of the elementary school of tomorrow should still be expected to be a specialist in elementary education. He should still be a person dedicated to the education of children. It is still important that he see children as appealing individuals, with children's needs and problems, children's excitement and verve and curiosity, children's importance as the promise of the future. We still need principals who see elementary education as a heart-swelling opportunity to affect eternity, and who are specialists in it.

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[13] In Morphet, Edgar L., and Ryan, Charles O. (editors). Designing Education for the Future No. 2: Implications for Education of Prospective Changes in Society. New York: Citation Press, 1967. p. 225.

A school staff is but an agglomeration of people, however professional, until a principal welds them into an instructional team. The pupils are just a crowd of children until the principal takes hold and, viewing those children as a nation's future, helps the staff plan, coordinate, and channel its efforts effectively to mold that future well. The school curriculum is but an abstract and inert conception until a principal and his staff bring it alive in the classrooms of the school, in the lives of the children, to achieve the educational goals they have mutually agreed upon.

The task of the principal for the 1980's is indeed a challenge of the future. However, it is well to recall the sobering observation of Roger Babson that, "The future has a sudden habit of dramatically becoming the present." And it becomes the past all too swiftly, taking with it opportunities that become sadly irrevocable. There is less time than we think.

Source: The Teacher and His Staff: Differentiating Teaching Roles. Copyright, 1969 by the National Education Association, Washington, D. C. Reprinted with permission from the National Commission on Teacher Education and Professional Standards.

IMAGES OF THE FUTURE II

J. Lloyd Trump

Almost a decade ago the National Association of Secondary School Principals published a booklet entitled IMAGES OF THE FUTURE in which we envisioned a new approach to the secondary school. We urged new professional roles for teachers and more individualization of learning for pupils in a different educational setting. Many of the recommended changes have occurred since then. What were startling proposals then are commonplace now.

I present here a second IMAGES OF THE FUTURE, but this time it is the model of a new kind of secondary school principal. This principal organizes his time and his school differently so he can place his highest priority where he knows it belongs--on improving teaching and learning.

His school work and other activities directly related to it average a 50-hour week for him. He realizes that he, too, needs time of his own for hobbies, for his family, and for his continued growth as a good citizen and a broadly educated person.

He shows by the use of his time how important is the improvement of instruction. Regardless of whether his school is large or small, activities in this area occupy three-quarters of his working time, or about 37 hours a week. The remaining time--about 13 hours per week--he devotes to other school tasks.

The Problem

Before proposing an organization that will enable principals in different size schools to achieve the goal of three-quarters time on instruction, let us consider some background material. Today's schools present problems which principals never before encountered to the same degree.

Schools still include the usual problems of discipline, attendance, pupil activities, guidance and testing, plant management, transportation, office management, cafeteria operation, and public relations. Some of the operations today are larger and more complex than they were formerly.

Today, new difficulties and opportunities further complicate the principal's life: teachers organizations are more militant; the economically deprived are receiving long-overdue attention; government and foundation programs urge innovations and provide new challenges; different organizational patterns such as educational parks and middle schools are emerging; innovations such as team teaching, flexible scheduling, use of auxiliary personnel to help teachers, improved technical aids to teaching and learning, nongrading, and different curricular content are emphasized; more interest in education is being shown by industrial giants with materials to sell, by parents with selected colleges and professions for their children, and by taxpayers increasingly frustrated by higher federal and state taxes which they cannot easily control.

The principal has two basic clusters of problems: (a) How does he find time to improve instruction, how does he go about it, and how does he know whether he is successful? (b) Since he is in charge of the total educational enterprise for his building, how does he manage all the difficulties, operations, and opportunities mentioned above?

The Organization

Our image of the future secondary school principal reveals how he organizes a staff to answer the foregoing questions. What is the organization to improve instruction? What about the other problems that take so much of his time?

First, we look at how the middle, junior, or senior high school principal handles the second cluster of problems, the ones to which he gives one-fourth of his time, or 13 hours per week. The principal of a large school requires a variety of specially trained assistants, most of whom in turn supervise specially trained subordinates. These assistants provide the principal with the information he needs and handle most situations.

One position is the administrative assistant, who is responsible for supervising the school plant, the cafeteria, transportation systems, and the office, and for seeing most visitors and salesmen and deciding if they need to see someone else. This person has specific training for these assignments, including their place within the framework of school objectives. He has authority for final decisions and makes them so effectively that seldom does anyone feel the need to talk with the school principal.

A second assistant is the external relations director, who is responsible for translating the school's financial needs into written proposals to the central office and to all levels of governmental agencies, to foundations, and to other groups. Financial proposals and the expenditure of moneys translate the school's goals into practice. This assistant, therefore, also develops and conducts the school's two-way public relations program.

A third assistant is the personnel administrator, with responsibility for supervising attendance, discipline and guidance and for developing liaison with other community youth-serving agencies. His contacts include police and juvenile authorities. He also works with teachers on their welfare problems. Parents and other persons having problems with school youth see him.

The fourth position is activities director, responsible for pupil and faculty extraclass activities, including the supervision of athletic and nonathletic programs and faculty social activities. Community individuals and groups see him in connection with their use of school facilities and other cooperative activities.

None of these assistants needs the training typically given to today's assistant principals or to principals. Quite to the contrary, each position requires a unique background of preparation and experience. Their professional escalation is to larger schools or to central office or state supervision of similar activities. It is not to the principalship.

The number of these assistants varies with the size of the school. For example, a 300-pupil school combines all of the assistants into one person. A 2,000-pupil school has four assistants, each with full-time assignments. Larger schools provide helpers for each assistant.

However, in any size school, the principal himself spends no more than 13 hours per week supervising these assistants, receiving their reports, attending events, or dealing with appeals from their decisions. He is firm in the policy of replacing any assistant who is unsuccessful in his area of responsibility to the extent that the principal continues to have to spend a disproportionate amount of time and effort on it.

Now let us turn to the principal's major task--the 37-hours-per-week assignment--the three-fourths of his time that he works with teachers and others to improve teaching and learning. The school organization for improving instruction is different from the staff we described earlier.

The large-school principal may spend three-quarters of his time with teachers on instruction and still lack time to get the job done. This principal needs highly trained persons to help with curriculum and instruction. These persons, called assistant principals, are prepared like the principal himself for these particular responsibilities. Some of these assistants may become principals.

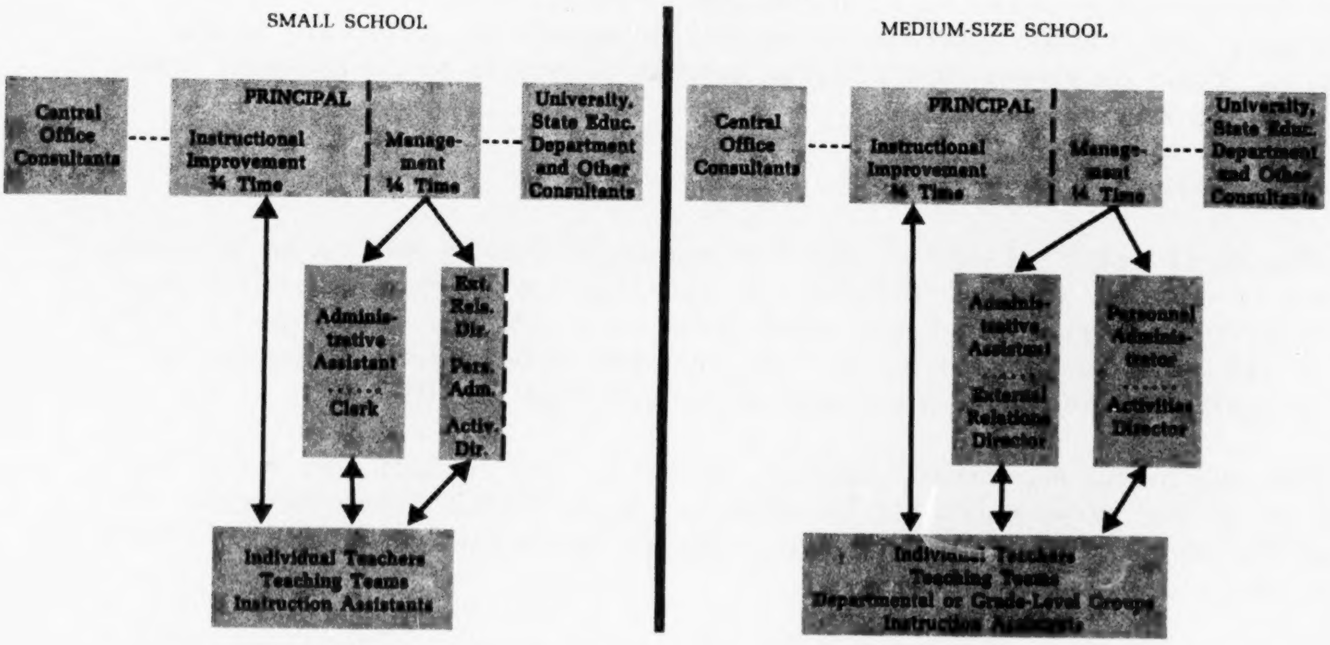
The number of assistant principals varies with the size of the school: none up to 500 pupils, one for each 1,000 pupils or major fraction thereof above that. That means a school with 1,200 pupils has one assistant principal; a school with 2,100 pupils has two, and so on.

Charts I and II symbolize how large, small, and medium-size

CHART I

TO IMPROVE INSTRUCTION

(See Chart II for Further Details)

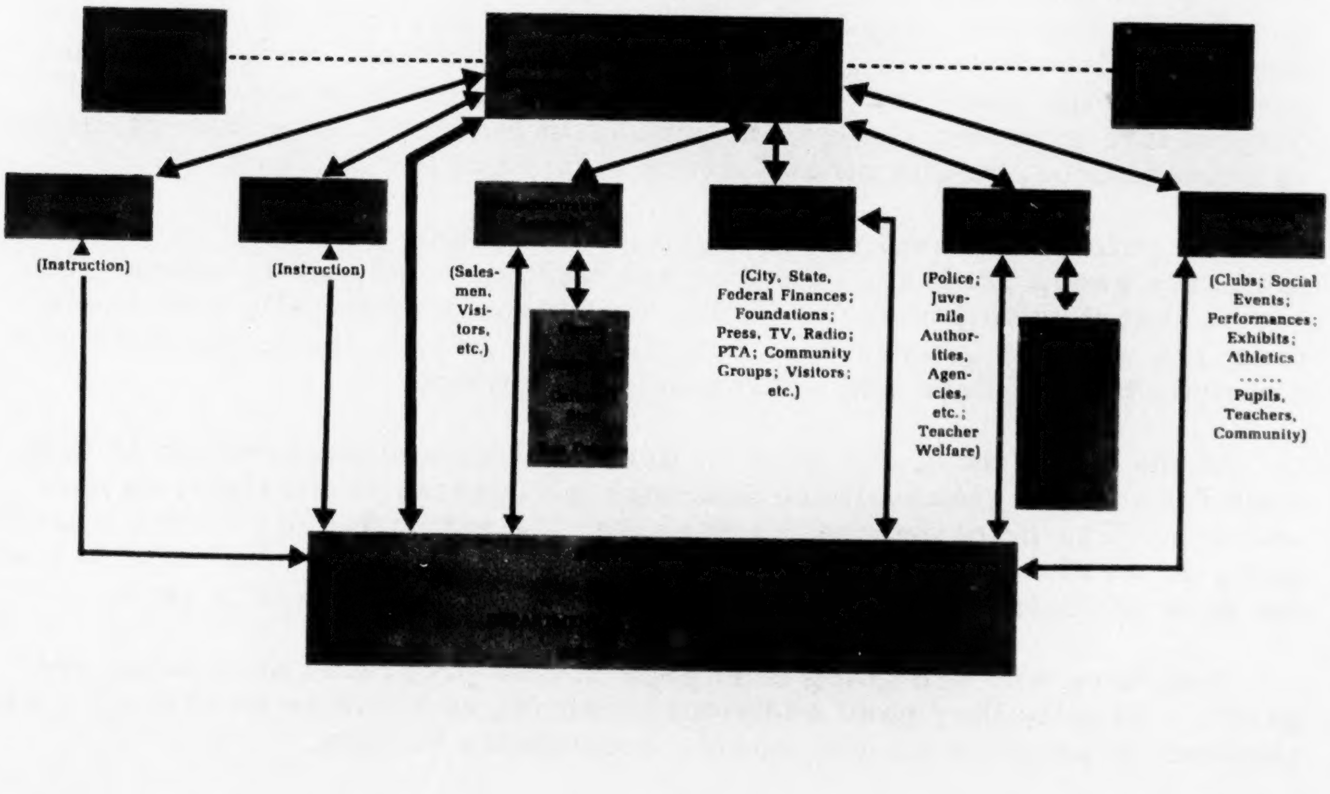

SMALL SCHOOL

MEDIUM-SIZE SCHOOL

Central Office Consultants
PRINCIPAL
Instructional Improvement ¾ Time
Manage-ment ¼ Time
University, State Educ. Department and Other Consultants
Adminis-trative Assistant
Clerk
Ext. Rels. Dir.
Pers. Adm.
Activ. Dir.
Individual Teachers
Teaching Teams
Instruction Assistants
Central Office Consultants
PRINCIPAL
Instructional Improvement ¾ Time
Manage-ment ¼ Time
University, State Educ. Department and Other Consultants
Adminis-trative Assistant
External Relations Director
Personnel Adminis-trator
Activities Director
Individual Teachers
Teaching Teams
Departmental or Grade-Level Groups
Instruction Assistants

CHART II

TO IMPROVE INSTRUCTION


LARGE SCHOOL

(Instruction)
(Instruction)
(Sales-men, Visi-tors, etc.)
(City, State, Federal Finances; Foundations; Press, TV, Radio; PTA; Community Groups; Visitors; etc.)
(Police; Juve-nile Author-ities, Agen-cies, etc.; Teacher Welfare)
(Clubs; Social Events; Performances; Exhibits; Athletics ...... Pupils, Teachers, Community)

schools are organized. Regardless of the size of the school, the principal analyzes the tasks to be done, recognizing that he carries the responsibility for the quality of the total educational program in his school. Then he separates carefully what he needs to do himself from what others can do for him.

The Program

The first requirement is that the principal knows where he is going. He reads widely, listens to teachers and other experts, and reflects on the pressures that come from many sources. He has developed a sound set of values. So he knows, for the present, what needs to happen in his school, and he has a program to ensure that it will.

The principal educates himself, and his staff in turn, by studying reports of the research done by others. If he wants some information about his own community or school, he initiates the local studies needed to get it.

The principal presents ideas to his entire staff as effectively as he can. He sees faculty meetings as a form of large-group instruction. He uses mass media, outside consultants, or any appropriate means available to motivate teachers, to provide information not readily available to them, and to urge teachers to follow up a particular proposal with further study and research in preparation for the discussion and decision making that will follow.

All teachers need to meet in discussion groups of not more than a dozen or so persons. Departmental or grade-level groups clarify proposals and discover areas of agreement and disagreement. Teachers tentatively interested in a project will hold additional meetings. The principal helps those teachers to translate the goals of any proposed project into expected changes in pupils, in teachers, in school facilities, in expenditures, and in other factors related to the innovation.

The principal meets with all groups to consult and observe and to facilitate group process. He does not wait for everyone to agree. He knows that it is important to begin, so he works especially with those teachers who are interested. This is the in group--those teachers who are open to new ideas and willing to try them out.

At the same time, the door to participation and observation is held open for the out group--those teachers who prefer to sit tight, to wait and see. The principal makes sure that the entire faculty knows what is going on--although the spotlight is on the inner circle. The hope is that the glow of their activities will make the others want to take part.

Teachers who are going to engage in new programs need to be prepared. Usually they need additional training at summer workshops, with students to practice on and outside consultants to help.

The principal helps to create a school environment that gives new programs a chance to succeed. The changes usually will include a new schedule for teachers and pupils, new books and learning aids, the reallocation of space, and the provision of personnel assistants.

Once programs are under way, the principal frequently visits the places where teaching and learning occur. Conversely, he does not attempt to visit all other teachers in a routine fashion. He knows the difference between good and poor teaching and learning situations, so he fosters the good and works to correct or eliminate the poor. The innovating teachers meet frequently to discuss what they are doing and how it is going. The principal meets regularly with them.

There is continuous need to find out how well new programs work and how good they are. The principal asks teachers the hard questions: What are they trying to accomplish and why? How will they specify their goals so they can collect authentic data that will measure the results? He follows through to make sure they do.

There are several dimensions in evaluating a new program, but the most important to students and their parents is pupil progress. However, the principal pushes consideration of all kinds of changes and the establishment of priorities for selecting the most important to evaluate. Specialists take part as needed. The effects of new programs on teachers also are studied. Innovations affect teachers as well as students. The financial consequences in relation to the results for students also are analyzed.

The Principalship

The principal's preservice preparation emphasizes such concerns as curriculum content and methods, social and psychological foundations, evaluation, and techniques for working effectively with people. Prior to assuming a position as principal or assistant principal, he spends a year as an intern, learning how to work with teachers, in a forward-looking school. The NASSP project entitled "The Administrative Internship in Secondary School Improvement" has demonstrated the particular type of program needed by these principals-to-be. Universities and selected schools work cooperatively in this project.

His first position is either as principal of a small school or assistant principal--as described earlier--in a larger one. In either case, he works hard to keep up to date. He reads, attends professional meetings, and takes part in conferences and workshops at universities. The principal also frequently visits universities, state education departments, and other places to confer about school developments and to identify who may be effective consultants.

The further education of principals is a continuing need. Periodically principals need to attend special institutes, courses, and workshops for sessions lasting two months, more or less, during the school year. An assistant principal takes charge during the principal's absence. Periodic full-time study of latest research findings, project developments, and innovative ideas is essential for the kind of principal described here. His education is never completed, even though he may have received a doctorate somewhere along the line.

This image of the future principal reflects a person who accepts responsibility for the quality of the total school program. His top priorities are on improving teaching and learning. No one else from outside the school can provide the constant leadership needed. Teachers cannot improve instruction solely through negotiations. The principal is there. Only he can generate the instructional improvement that the school needs. He demonstrates his influence because he is ready for action, prepared, and able.

OTHER MATERIALS OF INTEREST

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EDUCATING TEACHERS THROUGH DIFFERENTIATED ROLES

Donald C. Roush

The current uniformity of structure in public school and university education is undergoing the most penetrating scrutiny. To an extent, the concept of "The Teacher and His Staff" is proposed as a plan of action to improve instruction and to utilize more fully the talents of teachers. The design calls for the assignment of professionals and paraprofessionals to a teaching team where each member makes his unique contribution to the education of students.

The idea that these teams might extend the scope of their work to include the education of prospective and in-service teachers could greatly improve the quality of teacher education and collaborative practices among schools and universities. Moreover, the direct participation of teacher education students in the differentiated roles assigned to team members would challenge the uniformity of structure in the school and in the university.

Prior to a review of some materials prepared during the Year of the Non-Conference, it had not occurred to me that the assumptions supporting the "team and the teacher" organization were relevant to all levels of education. The following rationale extracted from a paper by Edelfelt[1] serves to describe the concept.

1. The job of the teacher has become unmanageable.
2. Teachers cannot function effectively in isolated and insulated assignments.
3. Teachers desire and need the stimulation of colleagues.
4. Modern developments, an affluent society, and the knowledge explosion mandate curricular change which can be achieved effectively by a teacher and his staff.

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[1] Edelfelt, Roy A. "The Teacher and His Staff." New York State Education 5: 16-19; October 1967.

5. Teachers, like all human beings, possess individual differences which can best be utilized through different assignments.

6. Pupils are different, too, and these differences can be met more effectively by a teacher and his staff.

7. Differentiated assignments cause teaching and learning to be more exciting and effective.

8. Teachers need to look forward to promotions in teaching.

The relationship of this rationale to the education of teachers is discussed later in this paper.

The exciting practices in the TEPS demonstration centers are also a revelation and ample evidence that some teachers are ready to break with traditional patterns. Even at the college level there is some evidence of change. Indeed, in limited ways college students are currently being prepared for teaching through differentiated roles. Students may choose a program where their role changes from school aide to teacher aide to assistant teacher to co-teacher during each of the four years of preparation; or they can spend three years in traditional curricula and change to the role of intern during their fourth and fifth years; or they can earn a traditional degree and accept a teacher-intern role for two years. These attempts to break with tradition may be imperfect in some ways, but too few of them exist. A large portion of a teacher's education is carried on in traditional situations, i. e., one role, a student, a student, a student, a student, and suddenly, somehow, a teacher. Even a cursory review of the more than two hundred demonstration center programs and practices suggests a number of implications for change in the traditional approach.[2] If teachers are going to work as members of a staff, surely they need to be educated in different ways.

It would make sense to provide for experiences with the teacher and his staff in preservice and in-service programs. Moreover, if differentiated roles improve elementary and secondary education, participation in such roles should improve the education of persons assigned to them.

Some may think it impossible to apply these ideas to university or even to in-service education. The plan I will describe is a modest attempt to educate students and teachers through differentiated roles.

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[2] National Education Association, National Commission on Teacher Education and Professional Standards. The Teacher and His Staff: Selected Demonstration Centers. St. Paul, Minn.: 3M Company, 1967 143 pp. Copyright 1967 by the National Education Association.

One runs a risk of being misunderstood when he talks about a program, but the intent here is not to prescribe but to describe.

In the Cooperative Program in Teacher Education at New Mexico State University[3] more than one hundred young men and women in the first, second, and third years of college currently are assigned to differentiated work experiences as an integral part of their education. We simply "tapped into" Title I-C of the Higher Education Act work-study program, identified able youngsters from low-income families who wanted to teach, and launched the Cooperative Program. These co-op students alternate semesters of study with semesters of laboratory experiences in the public schools. The laboratory semesters are referred to as work phases since the students are paid progressively at GS- 1, -2, -3, and -4 levels for their 35 hours per week rendered to teachers through differentiated roles while learning to become teachers. One-half of each group of students are in the public schools each semester while the other half are in the carefully planned study phase. Their assignments are reversed at the semester change.

All first-year students are assigned to elementary schools as school aides and all second-year students to junior high schools as teacher aides. Third- and fourth-year students are assigned to elementary, junior, or senior high schools, depending upon their career interest. They serve as assistant teachers the third year and as co-teachers the fourth year.

An integrated plan of professional education accompanies each laboratory experience. Students report to the campus once each week where they share and receive meaningful feedback about their experiences. Teachers and professors attend the seminars where they give and receive meaningful information about the "teaching team."

Emerging Perceptions of Integrating Study With Differentiated Experiences

Emerging from three years of experience with this new program are a number of significant perceptions about the teacher and his staff and differentiated roles as they relate to the education of teachers.

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[3] See the following for additional information: Saunders, Jack O. L., and Roush, Donald C. "Design and Rationale for an Experienced Beginner in Teaching." Journal of Teacher Education 17:192-97, Summer 1966; "The Experienced Beginner." Remaking the World of the Career Teacher. Report of the 1965-66 Regional TEPS Conferences Washington, D. C.; National Commission on Teacher Education and Professional Standards, National Education Association, 1966, pp. 170-76; and "Tapping Human Resources for Teaching Through Cooperative Education." Journal of Cooperative Education 4:1-5, November 1967.

> The teacher education program is no longer "locked in." The new professional education curriculum developing from the education course seminars directly related to each differentiated role is more vertical than horizontal. Students need to know something about the entire content of teacher education during their first assignment and progressively more in the second and third years.
>
> Teacher education is meaningful to students and to the teacher "in charge of the staff." When experience is directly related to an education course, and vice versa, most students, teachers, and professors are highly motivated.
>
> Some teachers are unable to utilize students in differentiated roles effectively, while others could probably not be effective or even retained in teaching without the opportunity for meaningful feedback from students and colleagues.
>
> Teacher education is competing for a larger proportion of the top talent in the university. Students admitted to the program are able and are being retained. The retention rate is 65 percent greater than in the regular program. On the other hand, some students found that teaching was not what they wanted, but they were able to find out as freshmen.
>
> Many co-op students enter the program with negative attitudes toward teaching and teacher education even though they want to become teachers. However, the change of attitude from negative to positive after one or two weeks of experience in a differentiated role is amazing.
>
> The co-op students seem to be developing a better self-concept and more self-assurance as they succeed in different role assignments. They should "land running" in the first year of teaching.
>
> Work experiences in differentiated roles are equipping co-ops for leadership in the education of other students and teachers in the future. Remember, co-ops will have participated in four different roles prior to becoming first-year teachers.
>
> Teachers currently receiving in-service education as they work with co-op students are learning how to work with a staff and could also be effective in continuing teacher education programs.
>
> As professors, graduate students, local school principals, local teachers, and co-ops work as members of a team, each group has much to learn from the others.
>
> The co-op program serves as an effective testing ground for

Edelfelt's rationale.

Testing the "Edelfelt Rationale"

Though the primary reason for the Cooperative Program in Teacher Education was to find a way to compete for the talent, we have learned volumes about how teachers and college students can work together in differentiated roles. Edelfelt's rationale is applicable to teacher education, as follows:

1. The job of the teacher is unmanageable.

   The job of the teacher is more manageable for those teachers who can and need to relate to others about the education of children.

2.-3. Teachers are ineffective in isolated and insulated assignments and need the stimulation of colleagues.

   Some teachers seem to prefer the isolation of their classrooms while others need a staff and the continuous stimulation of colleagues.

4. Modern developments mandate curricular change which can be met effectively by the teacher and his staff.

   The teacher and the co-op use modern technological equipment, but the impact of an affluent society and the knowledge explosion has not been observable.

5. Individual differences of teachers can be more effectively utilized through differentiated assignments.

   Co-ops are utilized by some teachers more effectively than by others. Some co-ops are more effective with some teachers than with others.

6. Individual differences of pupils can be met more effectively by a teacher and his staff.

   Pupils receive more individual attention where co-ops are assigned.

7. Differentiated assignments result in more effective motivation.

   Pupil and teacher excitement has been more evident where co-ops are assigned.

8. Teachers need to look forward to promotions in teaching.

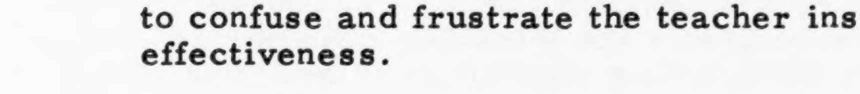
   Co-ops feel useful performing clerical and other nonteaching tasks but feel "used" when the task assignment becomes too routine.

Emerging Perspectives of Educating Teachers Through Differentiated Roles

Experiences with differentiated roles, the Las Cruces-New Mexico State University demonstration center, and the examination of literature relative to the concept of "The Teacher and His Staff" have greatly influenced our thinking about educating teachers. The following emerging perspectives may cause us to make major changes in the design of programs:

> The teaching profession should drop the use of the terms pre-service and in-service and give attention to integrated educational programs which will help teachers to be more effective each day of their career, from the freshman year of college to retirement. The "pieces" of a teacher's education often serve to confuse and frustrate the teacher instead of increasing his effectiveness.
>
> It may be that universities should give priorities to local schools requesting continuing teacher education services that are also willing to contribute to the education of prospective teachers.
>
> Whether teachers remain in teaching until retirement might well depend on the ability of the school to uqilize their talents and on the continuity of their educational programs.
>
> Plans of teacher promotion should be organized around teacher growth potentials. Team leaders, professionals, and paraprofessionals are terms which may contribute more to separation than to integration of educational programs. An organization of Student (S), Intern(I), Teacher (T), Teacher Master (TM), and Teacher Consultant (TC) is a simple but perhaps workable model for teacher growth and promotion.

Teacher Growth and Promotion Model



> Students preparing for teaching should understudy each position on the teaching team and act as catalysts for the different agencies and professionals contributing to the education of the teaching team.
>
> Professionals (I → T → TM → and TC) should participate in educational programs designed for their respective positions, and

they, too, could act as catalysts for the different agencies and professionals contributing to the teaching-learning process.

The necessity of educating personnel for and in each teaching position could become the motivating force in the development of educational programs for each team position. It would also be necessary to develop an integrated plan for educating teachers in the lifelong pursuit of their careers.

As society and knowledge change, professionals need to know more and more of what students are taught. Students need to learn about the real world of the school and teachers need to learn what the real world of the school ought to be. Plans of integrated teacher education could serve both groups and both purposes.

The teacher and his staff could become a formidable status quo barrier to new personnel unless they are engaged in continuous educational programs.

The process of educating teachers need not have direct relationship to certification, licensing, or degrees. Too often these requirements are unrelated to what professionals do and need to know in the classroom.

Assessing the Climate for Change

As I formulated the emerging perceptions and perspectives, I had the feeling that the implications for change were too overwhelming to touch the universities. It seemed that the college of education must act as the change agent or anchor man as the profession faced the challenge of change. My feelings were aptly expressed by Thoreau when he wrote that the corrective processes may "take too much time, and a man's life will be gone."

As one assesses the climate for change in teacher education, there are evident cues for encouragement as well as discouragement. A discouraging aspect is the apparent lack of concern of the teaching profession for teacher education.

If teacher educators in the university are envisioned as playing a pivotal part in the change process, the teaching profession must move rapidly toward unification (more than unified dues). The teacher educator faces a number of serious problems which often prevent him from being concerned or even interested in change. His heritage includes years of program deprivation, course duplication, a disinterested profession, and in some cases, a hostile campus atmosphere. It probably would be more accurate to discuss the lonesome world of the teacher educator because that has been his real world. He has been the campus fall guy or outcast, the public whipping boy, and the target of unethical statements of the teaching profession. He has observed the profession's willingness to have the "home of the profession" housed in the most primitive campus facility. In numerous cases the college has used teacher education for enrollment when it had little interest in and practically no commitment to teacher education. Later, after the college was "on its way," the teacher education program and its students were purged to support the curricula to which the college was really committed. We have been observers of this spectacle long enough. The time is overdue for the profession to set and enforce standards governing the professional preparation of teachers.

Fortunately, there are a number of encouraging signs in the change climate. Teacher educators have an unparalleled opportunity to capture the imagination of a changing profession. Their first responsibility is to ensure opportunities for meaningful education to the students they teach if their university preparation has not been meaningful. Teacher education products come from the same source to which they return. We can and must break the cycle.

The heritage of future educators can be a richer one. The NCTEPS has set the example. The 1963 National TEPS Conference in Columbus, Ohio, highlighted changes in teacher education. The 1965 National TEPS Conference in New York City focused on the beginning teacher. The Year of the Non-Conference has brought to the forefront hundreds of exciting innovations in public schools and, in some cases, in teacher education.

Other encouraging signs of the climate for change are presented through a series of questions. Is the quality of public education directly related to the quality of those who enter teaching and the quality of their preparation? Can teacher education achieve the desirable quality of preparation without the support and interest of public school personnel? Can the profession afford to be unconcerned abouts its "professional campus home"? Can the teaching profession avoid stating clearly defined standards for the education of teachers? And in the larger sense, will the profession continue to exist as a profession unless it insists upon the right to exercise its professional prerogatives? Can teachers and professors ignore the current search of students for a meaningful education? If "colleges and universities, mankind as a whole, are growing knowledge-rich and understanding-poor,"[4] will it not be necessary for teachers and professors to design learning models which attempt to integrate knowledge and understandings? Have the patterns of the past been so outstandingly successful that we must cling to them?

The answers to these questions, coupled with the processes in which the profession engages to seek the answers, will greatly affect the climate for change. Perhaps a focus on the major ideas of "The Teacher and His Staff" will diminish the magnitude of the challenge to change and serve as a way to capitalize on the "team movement" already under way in many public schools and a few colleges. At the risk of overstating the obvious, major changes seem to take place when people become caught up in an idea related to their needs.

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[4] Wendell, Philip R. "Teaching and Learning: The Basic Function." Whose Goals for American Higher Education. Washington, D. C.: American Council on Education, October 1967. p. 22.

In this paper, the major ideas related to the needs of the teaching profession seem to be:

1. The learner, whether student or teacher, receives a more meaningful education as he participates in differentiated roles as a member of a teaching team.
2. Differentiated assignments make it possible for a greater number of people to make more significant contributions to pupil learning.
3. The integration of the contributions of groups at various "levels" of the profession results in more effective teaching outcomes for the effort input and more meaningful feedback among these groups.
4. The learner, whether student or teacher, acts as a catalyst for the integration of various professional group contributions.
5. The education of each teacher is a lifelong venture requiring lifelong architectural plans.
6. The opportunity for meaningful role assignments and meaningful understanding of assignments attracts and retains a greater number of able teachers.
7. A number of superior teachers desire opportunities for promotion as teachers.

These ideas are the challenge of change, not co-op programs, internships, the concept of "The Teacher and His Staff," or any other particular design.

Whether these ideas are put into practice in the context of "The Teacher and His Staff" as described in this paper is beside the point. The point is that teachers accept the challenge and excitement of the continuous search for more effective ways to educate and for a climate of work more conducive to their effectiveness.

These ideas and challenges are commanding priorities. When students find a more meaningful education, they will find a meaningful profession of teaching. Students will be both knowledge-and understanding-rich when they are taught that way. Educating teachers through differentiated roles is one way.

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A PLAN FOR A NEW TYPE OF PROFESSIONAL TRAINING FOR A NEW TYPE OF TEACHING STAFF

Kevin A. Ryan

Few people are satisfied with the professional training given to teachers. Complaints come not only from elder statesmen and admirals but also from teacher educators and their students.

Criticism from within the educational community is perhaps more telling since it comes from the people who have to live with the results. The dissatisfaction seems to center on the relevance of present professional training to the daily work of teachers.

This paper outlines an alternative approach to the present efforts in teacher education. The plan is radical and as yet untried. However, as will be seen, it has a precedent in another field of professional training. The proposed plan for reform in teacher education can be traced back to the work of two men: the curriculum insights of Franklin Bobbitt[1] of the University of Chicago which were articulated fifty years ago, and the staffing patterns advocated by Dwight W. Allen,[2] of Stanford University in 1966. Finally, the plan proceeds from two assumptions: first, that presently teacher education is not adequately preparing the majority of teachers; and second, that the present use of teacher strengths is inefficient for the schools and stultifying for individual teachers.

Much of teacher training is ineffective because it is based on a rather doubtful model. When one examines the professional training of teachers, two categories of experience appear: exposure experiences and total immersion experiences. By exposure experiences I refer to courses in professional education, classroom observation, and other experiences to which potential teachers are exposed and from which they are expected in some mystical fashion to learn how to teach. By total immersion experiences I refer to our current student-teaching and internship practices. Typically, although not always, these immersion experiences follow exposure experiences. Armed with several education courses and having watched others teach, the student or intern is immersed in a classroom with the expectation that he will come out a teacher. This

[1] Bobbitt, Franklin. The Curriculum. Boston, Mass.: Houghton Mifflin Co., 1918.

[2] Allen, Dwight W. "A Differentiated Staff." Palo Alto, Calif.: Stanford University, 1966. (Mimeographed)

practice is reminiscent of survival training for paratroopers in which a trainee is dropped in hostile territory and, after struggling to stay alive for a number of days, is expected to emerge intact. Besides appearing rather inappropriate for the development of cognitive and effective skills, this immersion experience does not seem fair to the school children who come to learn.

There are also questions about the relationship between the exposure and immersion experiences. Are the objectives of the education courses to be demonstrated by the beginning teacher in his initial teaching? Are the education courses and observation programs designed to bring about specific changes in the prospective teachers, i. e., effective teaching skills and pedagogically sound attitudes? While many teacher educators would answer in the affirmative, few have bothered to offer hard, supporting data.

The present model operating in teacher training has, however, one major attribute: it is economical. Courses and initial teaching experiences do not draw heavily on our resources. But if the quality of public education is related to the economic future of the nation, as many scholars suggest, the economy in teacher education seems shortsighted. From the viewpoint of the potential teachers who are willing to take on the grave responsibility of educating the young and who come to learn how to fulfill this responsibility, this economy is even more dubious.

A Proposed Model

In 1918 Franklin Bobbitt[3] called for a scientific approach to curriculum building. Like many good ideas, his plan was disarmingly simple but complex and difficult to carry out. In essence, he said that those who construct curriculum should go out into the world and discover the specific activities which constitute human life. The curriculum, then, becomes the abilities, skills, attitudes, appreciations, and forms of knowledge that men need in order to live well. Extending Bobbitt's plan for general curriculum to curriculum building in teacher education, it follows that the teacher educator should go into the schools and other places where learning occurs and discover the specific activities that constitute good teaching. The trainee's curriculum, then, would center on those activities.

"Good teaching" is a troublesome phrase. It is too big, too all-inclusive, and too slippery to deal with intelligently. Trying to come to any conclusions about teaching using this monistic approach is like wrestling a greased boa constrictor in a darkened room. In both, the object of pursuit is illusory and the ends difficult to determine.

---

[3] Bobbitt, op. cit.

Nathan Gage[4] of Stanford University offers valuable insight into this problem. In discussing ways of analyzing the concept of teaching, he makes the following point "Teaching can be analyzed according to types of teaching activities. Teachers engage in explaining activities, mental hygiene activities, guidance activities, demonstrating activities, order-maintaining activities, housekeeping activities, record-keeping activities, assignment-making activities, curriculum planning activities, test and evaluation activities, and many other kinds of activities. If everything a teacher does qua teacher is teaching, then teaching consists of many kinds of activities." Looking at teaching from the activities or skills point of view, the problem of educating teachers becomes more manageable.

The problem now is to specify the activities in which a teacher should be skilled and to develop training protocols that foster those skills. The result is a performance curriculum in teacher education. The performance approach to professional education is not without precedent. The military has been using a performance curriculum quite successfully for years. Typically, the military prepares men for new roles by training them to perform the skills appropriate to the roles. For example, each year the military takes thousands of non-pilots and transforms them into skilled professional pilots. The performance curriculum for pilot training resulted from the examination of the pilot's role--what he must do, how he must be able to perform. Once the curriculum builders had clear goals in mind, they set out to design and test a curriculum that would bring non-pilots up to the performance level of pilots. The resulting curriculum is directed by a set of very clear objectives, provides knowledge and develops skills to reach those objectives, and systematically measures its effectiveness by checking on how well its trainees are fulfilling the objectives.

The pilot trainee starts at the bottom of the curriculum and advances through a series of phases. Advancement is dictated primarily by his performance of specific skills. While much of the instruction follows the typical classroom learning approach, there is a tight relationship between the content of the individual lessons and the tasks the pilot will be called upon to perform.

However, a pilot does not learn to fly in a classroom. Although he learns much from films and lectures, the bulk of his training is done in simulators and through in-flight exercises. Simulated experiences provide a bridge to actual in-flight training. The trainee learns new skills in a safe situation in which a complex act is simplified and can be systematically mastered. One of flight training's most famous simula-

[4] Gage, Nathan L. "Theories of Teaching." Theories of Learning Instruction. Sixty-third Yearbook, National Society for the Study of Education. (Ernest Hilgard, editor.) Chicago, Ill.: University of Chicago Press, 1964.

tors is the Link trainer. The Link is essentially a cockpit on the ground. The trainee climbs in the hooded cockpit and various problems are radioed to him in sequences of ever increasing difficulty. He in turn attempts to handle them and receives feedback on his performance. As he masters each problem he gains valuable skills which are tested in the next stage--in-flight training. There are three phases of in-flight training: familiarization flights, supervised flights, and solo flights. In the first phase--familiarization flights--the trainee acts as an observer. An experienced pilot-instructor demonstrates the various maneuvers and performs specified in-flight tasks. In the second phase--supervised flights--the positions are reversed: the trainee performs the maneuvers and in-flight tasks with the instructor acting as an observer. In the third phase--solo flights--the trainee flies alone but is supervised either from the ground or by an instructor in a trailing aircraft. In each one of these in-flight phases there are specified objectives and the purpose is highly focused. Progress through each phase is governed by the trainee's performance. It is only after successfully completing all aspects of this training program, after demonstrating that he can perform the skills that make up the goals of the program, that the trainee graduates and receives his wings.

But receiving his wings does not mark the end of a pilot's training. It is the end of the beginning. Continuous training becomes the modus vivendi of the professional pilot. Although a pilot goes through what would really be considered further training in the regular flying duties he performs, he still spends a good deal of time in formal, advanced training. He is continually going through refresher courses to sharpen and practice his skills and is constantly introduced to new techniques and equipment. Also, as the professional pilot advances in rank, he is sent to schools to train him for specialized duties. In effect, a military pilot's training ends only with retirement.

Using this brief discussion of the components of military pilot training as a model, what follows is its suggested application to the professional training of teachers. First, however, a caveat or two is in order. The training program outlined below does not apply to the entire education of a teacher. It will not develop a liberally educated person. Nor will it foster the specialized knowledge of the discipline needed for many types of teaching. It will not provide the teacher trainee with the proper attitudes about teaching and about children. It cannot develop in him a passion to reach out and touch fellow mortals with truth. These tasks must be left to others: the potential teacher's parents, his entire history of schooling, himself. The aim of the program outlined here is a limited one. It tries to train learning strategists and skilled communicators. It tries to develop professionals capable of passing on to students the knowledge they need and of exciting them about learning. While the suggested training program will not develop the knowledge of the disciplines and attitudes necessary for teaching, it will show the teacher how to channel these and bring about effective learning in students.

Application of the Model to Teacher Education

In discussing the application of the pilot-training model to teacher education, various phases of training will be paralleled for purposes of clarification and demonstration. It should not be inferred that teacher education has exactly the same number of phases or that they are of equal importance.

Teacher candidates should be chosen for training according to specific criteria. Instead of having the number of academic courses taken as the criterion, the yardstick should be the ability of the candidate to demonstrate familiarity with certain core concepts, bodies of knowledge, and particularly the unique structure of each discipline. Early in training the teaching candidate should be introduced to specific bodies of knowledge about teaching and learning, concepts and information on which his professional performance should be based. Although the traditional methods of classroom and lecture hall instruction may be the most economical means here, educators should be pioneering in efficient and ingenious methods of presenting this core information. Since the overriding principle of this model is progress through demonstration and performance, much should be taught through self-pacing programmed instruction. Methods such as Mars's[5] training in six different types of audiovisual aids could be employed. In Mars's training, the student follows a programmed sequence while operating the various pieces of audiovisual equipment. For example, while operating the tape recorder, the student hears taped instruction on the various operations of the tape recorder and also is told how to use the next piece of audiovisual equipment in the programmed series.

There is a tendency in professional education, as in other areas, for the number of required courses to proliferate. Unfortunately this proliferation is not always in direct relationship to the growth of knowledge. In the professional education of teachers it is imperative that criteria of relevance be applied ruthlessly to the curriculum before being established firmly as part of the curriculum. Each educational experience included should have demonstrable transfer value to the teacher's role in the classroom.

Instead of exposing beginning teachers to a series of education courses and then immersing them in the complex milieu of a class of twenty-five or thirty students, they should be trained gradually to acquire basic teaching skills through a series of simulated or constructed experiences. This aspect of training can be divided into three phases similar to those of pilot training.

The first phase is classroom observation. Typically, however, observation has been unstructured. The beginning teacher is sent into classrooms with the hope that he will learn by example. If the trainee is not sensitive to the complexity of teaching and has received little direction, it is doubtful that this type of observation is particularly fruitful. Observation experiences, like all training experiences, should have specific objectives and some means of measuring whether or not the objectives have been met. One way in which to make these observations more fruitful is to direct the observer's attention to certain phenomena, like the teacher's use of information-structuring statements, or the classroom routines the teacher employs. Also, since it is difficult to predict what will go on in the class to be observed, a greater "quality control" could be attained in observation programs through the use of selected video tapes--tapes chosen to demonstrate specific aspects of teaching-learning situations. The important point, however, is that observation experiences should be purposeful events, not catch-as-catch-can happenings.

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[5] Mars, W. J. "Student Teachers Teach Themselves." Educational Screen and Audio-Visual Guide 42:566-67; October 1963.

The second phase of this training involves more active participation of the trainee. Here the trainee applies some of the principles learned through previous training but in a setting less complex than a normal classroom. The tutoring of one student is a good beginning. Again, the objectives of the tutoring should be specified. The second stage should involve the trainee in microteaching experiences--the instructing of a few students for a short period of time. There are three advantages to microteaching. One, this constructed teaching experience provides a maximum feedback from the supervisor and from students, and when possible, from immediate playbacks of video-tape recordings. Two, the trainee not only receives practice teaching in a specific subject, but he also practices a specific teaching skill or technique. Three, the short microteaching experience can be repeated with different students until desirable levels of performance are reached.

The active-participation phase of training should also include group or team teaching by several trainees. Here, five or six trainees plan a series of lessons and take turns instructing a group of students. After each teaching session the group critiques the performance and plans for the next lesson.

These various types of constructed and limited teaching situations should be part of an overall plan to develop teaching skill in the most important areas that constitute good teaching. Again, each should be designed to accomplish specific tasks and implement various objectives of the training program.

When the teacher has practiced and demonstrated his ability to teach in simulated situations, he is ready to take on the instructional responsibilities of a regular class. This phase corresponds roughly to our present practices of student teaching and internship, except that the teacher trainee has had an opportunity gradually to build up a repertory of skills and a background of experience. The main purpose here, however, is to put the trainee on his own so that he can integrate his previous learning of isolated skills and techniques into a coherent whole. During this period, the trainee must demonstrate his mastery of the various teaching activities to his supervisors. It is this performance of professional tasks that constitutes his right of passage, and at this point the teacher is ready for certification. Certification should not be the end of training but the end of the beginning. Just as a pilot continues his professional training throughout his active career, so should a teacher. Although we give lip service to this idea of in-service training, it is rarely reflected in any substantial way in a school's daily schedule for teachers or a district's educational budget.

We are deceiving ourselves if we think that a teacher, even one who has gone through the thorough type of training outlined here, can do a professional job for very long without some additional help, some special training. Today particularly, amid the knowledge explosion and in a technological revolution which is just beginning to have an impact on the schools, it is imperative that we junk the idea that the profession can give its seal of approval to a trainee and then leave him alone. Training--intensive and continuous--should be a part of a teacher's professional life.

The Differentiated Staff

The problems of teacher education, like education generally, would be greatly simplified if we were dealing with a complete homogeneous population. This is not the case, however.

There is an immense range in the abilities and potentialities of those who choose to be teachers. They come to teaching with widely different intellectual and experiential backgrounds. They have a wide spectrum of interests and career goals. They have differing capacities for leadership. They differ widely in their mastery of the various skills and activities that constitute teaching. We could also say that they differ in their capacity to grow professionally. In spite of this great diversity, however, teachers are treated essentially as interchangeable parts. Except for differences within grade levels and subject areas, all teachers have pretty much the same job description. They are given the same duties and responsibilities.

Our present staffing patterns require that each teacher become a jack-of-all-trades and do not encourage the development of mastery of specialized professional competencies. They permit the situation where the great teacher and the incompetent teacher daily teach in contiguous classrooms the same number of students but with widely different effects. Further, present staffing patterns have fostered a promotion system that leads out of the classroom. The ambitious teacher who wishes to advance is not given greater responsibilities to instruct more students but "moves up" to an administrative position that takes him further from students.

The differentiated staff, as proposed by Allen[6], allows the gifted teacher to exert a much greater influence on the students and his colleagues than does the present system. It also allows the more limited teacher to make contributions more in line with his strengths. The differentiated staff concept meets the issue of individual differences among teachers head on and attempts to maximize the capacities and abilities of the staff while minimizing their areas of weakness. To facilitate this end, teaching staffs are grouped according to different duties, specialties, and different levels of responsibility. In effect, there are different categories of teachers.

Basic to the idea of the differentiated staff is the principle that positioning on a staff is dictated by performance and demonstrated competence. Years in the classroom, courses taken, degrees obtained are not in themselves suitable criteria for deciding who will have what level of educational responsibility. In the proposed system, talent is the basis for differentiation, and talent is the basis for reward.

Training in a Differentiated Staff

The dual purposes of the differentiated staff are to maximize educational opportunities for children and to provide viable career patterns for teachers. Since teachers' movement within a differentiated staff is dictated by their performance and professional competence, special allowance should be made for staff training. Once the various levels of teacher skill and competence are delineated, it becomes the function of a training program to help teachers reach their potential within this framework. Given this aim, in-service education takes on much more importance in and relevance to a teacher's professional role.

In a differentiated staff, one of the major responsibilities of teachers at the higher levels is professional in-service education. While not all higher-level teachers would have equal responsibility in this, those with special skills and leadership qualities would direct and provide for staff training. Although a much greater commitment to in-service education is needed throughout the educational enterprise, it becomes particularly important within a differentiated staff. Without effective and continuous training, a carefully differentiated staff could become, within a few years, a static oligarchy. If movement within a staff is based on performance and competence, provisions for training and demonstration of competence become crucial. Therefore, while much of the in-service education program will be aimed at providing "refresher courses" and instruction in new content and methodological dimensions of the curriculum, a major focus will be on providing training for higher levels of responsibility.

The in-service program for a differentiated staff should be an extension of a preservice education program. It should help sharpen the professional skills of teachers. It should help identify and utilize the special talents and abilities of teachers. In this connection, it should be flexible, readily supplying special resources to those desiring special training. The in-service program should be the instrument for systematic change in education. Finally an in-service program should provide the advance training for those gifted teachers who wish to take on higher levels of professional responsibility without giving up their place in the classroom.

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[6] Allen, op. cit.

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ORGANIZATION AND TRAINING OF PARAPROFESSIONALS

Frank E. Bazeli

Recent advances in the professional status of teachers and startling adaptations of technical procedures to education have prompted leaders in the field to abandon stereotyped concepts of school staffing patterns and teacher roles. New organizations, which include a support staff of paraprofessionals in every school, are now proposed.[1]

To be sure, most schools today operate substantially as they did 30 years ago. Teachers remain locked in a role hierarchy which is not quite professional in status and largely sub-professional in nature. The routine activities required of them every school day seldom permit more than limited attention and energy being spent upon the diagnosis of pupil learning progress and in the development of sound teaching strategies. This situation will not continue for long.

Within the next generation, large urban and suburban schools will change over to administrative operations utilizing advanced systems procedures and sophisticated computer and data bank hardware. New sets of interrelationships are evolving, in which the professional faculty will no longer be clearly subordinate to the administrative staff. School administration will become a support and service function. Master teachers with at least six years of professional preparation will be largely self-disciplined. They will be strongly represented in policy decisions and will have relative freedom to initiate and carry through applications of the latest research in education. Newly graduated teachers will intern in learning centers under the direction of the master teachers, and with the support of paraprofessional technicians and sub-professionals.

Other professionally directed services provided in large, progressive schools will include a counseling and test center, a media production and distribution department, and an information retrieval center (the old library). Each of these service centers will employ various types of paraprofessional specialists and sub-professional personnel.

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[1] Newlin, Wayne, "It Can be Done: Teacher Aides Can Make a Difference in Illinois," Illinois Education, Vol. 30, No. 5 (January, 1968), pp. 213-216; Edelfelt, Roy A., "Staffing for the Changing Pattern of Organization for Instruction and Learning," Virginia Journal of Education, Vol. 62 (September, 1968), pp. 15-17; National Commission on Teacher Education and Professional Standards, NEA, "Auxiliary School Personnel," Reprinted in National Elementary Principal, Vol. 46 (May, 1967), pp. 6-12.

The Sub-Professional Staff

While still in the initial stages of institutionalization, it is fairly clear that the support staff will include a hierarchy of positions with at least two major divisions: the paraprofessional specialists with from two to four years of advanced preparation, and sub-professional personnel with limited training. This hierarchy of job levels will provide opportunities for advancement and specialization after suitable preparation and experience to those individuals who seek it.

The sub-professional staff will assume, in general, two types of service functions: monitorial control of pupil activities outside of the learning centers, and clerical help for the teaching faculty and the professional personnel in the service centers. While no distinct titles have been given to individuals performing these duties, for the purpose of differentiation they might be called "staff aides" and "clerical aides."

The roles of the staff aides will include those pupil control tasks now taking up so much of teacher time. Under the direction of administrators and teachers the staff aides will monitor pupil traffic where necessary in corridors, the cafeteria, at assemblies and other gatherings, on field trips, and outdoors. In addition, their usefulness will range into any activity which may be enhanced by the experience and understanding of an adult. In effect the staff aides will provide the professional faculty with a pool of adult resources highly useful in many facets of the school program and operation.

The clerical aides will relieve the faculty of the second most burdensome set of sub-professional duties, which consume so large a part of the school day. Assigned to instructional teams, and employed in the service centers, the clerical aides will be responsible for essential organizational routines, record keeping, typing, filing, duplicating, inventory control, and other duties which facilitate the smooth operation of the school. This will allow the faculty to address itself more fully to pressing professional problems.[2]

Recruitment, Selection, and Training

The recruitment of sub-professional aides ought to be confined, where possible, to applicants living within the school community. This is important especially within the inner city of large urban districts. Aside from the accrual of economic benefits and job opportunities, substantial numbers of individuals, working as full or part-time employees in the neighborhood school, open up a communications channel of great mutual value.

[2] Hill, Julia H., "Expanding Teaching Time and Talents," School and Community, Vol. 55 (October, 1968), pp. 24-25.

In the community the aides will constitute a cadre knowledgeable about the operation and organization of the school. Through informal contacts the aides could make known to parents effective ways to interact with the school, aid their children in the education process, and alleviate the fear and suspicion often blocking meaningful relationships. Locally recruited aides would benefit the school through their ability to interpret community sentiments and needs, identify and help contact indigenous leaders, interpret to the professional staff the substance of unfamiliar sub-cultural mores motivating pupil behavior, and influence to a considerable extent the curriculum offerings and teaching strategies in the school.[3]

In effect the recruitment of local residents for sub-professional aide positions in the school will dispel to some degree the situation which frequently occurs in which the school is seen as an outpost of an alien, dominant society within the sub-culture of the neighborhood. The school will more truly belong to the community which it serves.

Because the staff and clerical aide roles do not require a great deal of specialized training, the selection criterion in education might be set at about the high school completion level, signified by a diploma or its equivalent. Special talents, skills, experience and maturity should be weighed more heavily than formal credits, at least at the entrance stage. Some attention ought to be paid to the applicants' ability to articulate, to assume responsibility, and to evidence of freedom from serious physical and mental health problems.

Pre-service training of sub-professional personnel will probably remain the responsibility of the school system. It is important that the district develop an organized, carefully planned program in which all new employees should be paid and required to attend prior to taking up duties at individual schools. While each program will reflect the special needs of the system, a pre-service training period might take three weeks, probably held just prior to the opening of school, and cover the following general areas of concern:

(1) An orientation to the organization of the school district and to the operational structure of individual schools, with attention to educational processes and programs.

(2) An examination of the roles of the subprofessional staff in the school organization, their work relationships with other personnel, and conditions of employment, promotion, and retention. Eventually, these conditions will be negotiated in union contracts.

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[3] Passett, Barry A. and Glenn M. Parker, "The Poor Bring Adult Education to the Ghetto," Adult Leadership, Vol. 16 (March, 1968), pp. 326-328.

(3) An overview of child growth and development, with special attention to the problems of children as they strive for emotional, intellectual, and social maturity. Policy concerning treatment of pupils must be carefully spelled out.

In-service programs may be planned and conducted on the individual school level. These programs should reflect the peculiar needs of the school, its staff, and the community which it serves. Sub-professional aides should be given every opportunity for personal development leading to increased pay and promotion.

The Paraprofessional Staff

The advancement of professionalism in education is in large measure due to adaptations of cybernetic technology to learning processes. With the introduction of teaching machines, talking typewriters, economical video - tape production and playback equipment, computer programming within individual schools or through tie-in devices, the conversion of libraries into sophisticated information retrieval centers which utilize data bank equipment and micro-film material, and the establishment of learning laboratories with individual programs through console controlled equipment, there is now arising an accelerated demand for specialists trained in educational technology.

Teachers will use technologists to facilitate production of programs, retrieve information for classroom presentations, and create the technical capabilities necessary for individual pupil progression. Further, technologists and cyberneticians will make it possible to establish rapid and efficient administrative procedures on a school and district wide basis. Finally, trained specialists will perform the routines of testing and reporting evaluations of pupil progress, freeing counselors and teachers to function in their professional capacities.

A second category of paraprofessionals will provide direct assistance to teachers in carrying through the specifics of professional activities. Instructional aides under the supervision of teachers will tutor individual small groups of pupils in specific skill development, work with them on research projects, demonstrate specific operations and experiments in classrooms, laboratories, and shops, and, in fact, perform many duties now considered professional in nature.[4]

Recruitment, Selection, and Training

Recruitment of educational technologists and instructional aides will likely parallel practices current in filling teaching positions. For the present and near future, graduates of junior colleges and private technical schools will comprise the bulk of applicants. As schools become even more technically and professionally oriented, more advanced programs will probably be established at four-year colleges and universities. This will be true especially for instructional aides. Eventually, as much preparation will be required for advanced level instructional aides as is now demanded of entrance level teachers.

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[4] Allen, Dwight W. and Donald DeLay, "Stanford's Computer System Gives Scheduling Freedom to 26 Districts," Nations Schools, Vol. 77, No. 3 (March, 1966), pp. 124-125; Jensen, Lamont, "The Instructional Aide in the Open Biology Laboratory," The American Biology Teacher, Vol. 29 (December, 1967), pp. 748-749.

An associate degree in educational technology or instruction will probably become the standard criterion for the selection of applicants for some time to come. Junior colleges have an opportunity to create programs and establish themselves as prime suppliers of specialists for these positions. Due to the demands of business, programs for the preparation of computer programers and systems analysts are well established in most community colleges and many are presently initiating preparation sequences for specialists in education. In addition to courses in general education and major fields, most teacher aide sequences require courses in "Introduction to Education," and "Educational Psychology." An excellent program would include a methods course with a related practicum or internship under the guidance of cooperating professional staff and college supervisors in local schools.

It is expected that many capable educational specialists, through the encouragement of enlightened school systems, will continue their education until they achieve professional status.

Personalized Instruction

The adaptation of cybernetics to school operation and the incorporation of support staffs of paraprofessionals will make it possible for children to be freed from the mass education methods, which waste so much human potential in traditional schools. While there is a real danger that the computer age may result in a dehumanized education process, this need not and should not happen. The use of a differentiated staff will allow teachers to spend most of their time in close, personal and professional contact with their pupils on an individual and small group basis. This intimate attention will enable children to progress at their own speed with the elimination of grade failure. The replacement of regimented class session by more flexible learning center activities will allow for greater personal interaction between pupils. This will promote social and emotional growth and provide many more opportunities for the exercise of leadership and self-discipline.

Frustrations permeate the learning process. The personalized attention of a differentiated staff can prevent these frustrations from becoming permanent blocks to pupil progress. Instead, learning defects may be turned into valuable lessons in creative problem solving and skill development.

Source: Staff Differentiation and the Preparation of Educational Personnel

IMPLICATION OF DIFFERENTIAL UTILIZATION OF PERSONNEL FOR PREPARATION PROGRAMS

Roy A. Edelfelt

I guess as long as there has been no definition of what we mean by differentiated personnel, it might be well to begin with my understanding of differentiated personnel. *Differentiated* may not be quite the word to describe what we are talking about, because some people think that means what we presently do with secondary school teachers--one teacher teachers history, another teaches English, someone else teachers social science, and so on. That sort of "differentiation." In the elementary school we could say we are differentiating by having different teachers for each of the grades.

That is really not it, as far as I understand it. I think we are talking about differentiating roles for school personnel--using teachers and other professionals and subprofessionals in a variety of assignments in accord with their competence and talent, education goals, and the difficulty or intracacy of their teaching tasks and other professional functions.

Differentiated roles include not only teachers but also a variety of special service personnel, such as guidance people, subject matter specialists, supervisors, administrators, school psychologists, and others of that sort. They also include, I think, various subprofessionals--teacher aides, student teachers, interns, parents if they are not classified as aides, and so forth.

There are a variety of models that have been developed which illustrate differentiated staff. Some of the people participating in this program have been developing such models. You are probably best acquainted with models such as the Head Start model, in which there is a lead teacher, perhaps an assistant teacher, a teacher aide, health service personnel, and people working with individuals and small groups as well as with the entire group. The trunk model of course has been around for a while. This is a team teaching model with a hierarchical sort of arrangement: a team leader on top, a regular teacher, interns and teacher aides.

The TEPS Commission has published a work by Bruce Joyce which represents still a third model. He talks about a direct instruction team, where there is a team leader and assistant team leader, two regular teachers, two interns, and two aides, enhanced by support centers which he identifies as a computer center, a self-instruction center, a human relations center, an inquiry center, a guidance and evaluation center, and a materials creation center.

Still another model is Bernie McKenna's model, which he calls the teaching proficiency model. He identifies the teacher technologist; the person concerned with the teaching of basic skills and knowledge, a liberal enlightener, who is a master presenter, an identifier of talents, a person who works at assessing interests and aptitudes, a developer of talents and aptitudes, a facilitator of attitudes and interpersonal behavior development. This is spelled out in a little pamphlet published by the California Teachers Association entitled School Staffing Patterns. Still another model Dwight Allen developed in a paper we published on differentiated staff. He talks about professors, senior teachers, staff teachers, associate teachers. One illustration of this sort of program is seen in the work Dwight has been doing at Temple City.

I think you can begin to sense in these illustrations other kinds of task definitions. I haven't been too precise about teacher tasks performed in these models, and it seems to be this probably ought to be done at the local level, for a variety of reasons. One is that competence is probably a function of situation, so it is necessary in terms of the whole situation to look at the goals of education in that setting and decide what competence is in that particular situation.

There are probably several factors to take into account in differentiating staff. One is the matter of establishing some levels of competence. This should be both in terms of degree and kind. Also there is the matter of recognizing various levels of difficulty of tasks or difficulty of responsibilities. And thirdly, the matter of differentiating compensation in terms of both levels of competence and degree of responsibility that a teacher assumes.

It is also important to ask the question,"Why differentiate staff?" Central, of course, is the question of providing a more individualized program and breaking out of the lockstep which is no longer defensible in a society that can afford to work with teachers on a more individual basis. But a differentiated staff also offers an opportunity to make better use of teacher abilities. It is also possible to provide more flexibility in terms of the use of teacher time, of space available, and of talent. It is more realistic, I think, in terms of the manpower dilemma. We are finally recognizing that there is a huge transient group passing through the teaching profession every year and that we probably shouldn't treat all teachers as if they were the same kind of people. The difficulty we have in keeping qualified people in teaching is attributable in large part to the fact that there is no promotion in the classroom. If you are promoted, you are promoted out of the classroom. Differentiated programs recognize that learning to teach is an on-the-job business. With a differentiated staff, there is an opportunity to learn tasks of varying difficulty and then move into more difficult tasks.

It also provides, or could provide, a career pattern in teaching, where there would be someplace to go. Teaching at present is the same on the last day you teach as on the first day in terms of responsibilities in most schools. I'm sure the monotony of 45 years beats some people down to the point where during their last few years they are not very vital people in the classroom.

A differentiated staff recognizes competence and relates it to responsibility and provides in some situations--and I think should provide in all situations--compensation that is adequate to keep people in teaching. Therefore, teachers don't have to do as so many of us here have done--move out of teaching because we couldn't make enough money or get enough status in the public school classroom.

It also provides a variety of jobs in the school so that people with different motivations, different amounts of time to spend, different degrees of commitment can find work. The working mother, the second-income person, the individual who wants part-time work rather than full-time work, the subprofessional, etc.--all might come under this heading.

It also provides an effective link with colleges and universities, because it inevitably becomes a training ground for teaching as well as a good school for youngsters. In addition, it provides a situation in which professionals can complement or stimulate each other by working together in groups or teams. I don't think this is as possible in the isolated classroom of most teachers in most schools today.

Now, my job is to say a bit about the implications for colleges, and I guess it is presumptuous to try to draw implications, but that is what I was asked to do, so I'll try. I suspect that the reason for drawing implications is that we need to do something at the collegiate level about the developments in public schools.

In the work we have been doing through our office this year, we have identified 210 demonstration centers which exhibit in their programs some of the factors I have been talking about. Either there is differentiation of role, there are subprofessionals, professionals, and special service personnel working in different kinds of ways, or there is some attention to climate for professional growth, some attempt to break away from one teacher teaching 25 students.

I have divided the implications I foresee into simple changes, changes that would be a little more difficult, and difficult changes. It seems to me that among the simple changes that could be made in colleges, or simple implications of differentiated staff, is the possibility of employing undergraduates as teacher aides. This is already the case in some colleges prior to student teaching. Sometimes teacher aides are not in teacher education.

A second simple change would be to convert the concept of student teaching to a work-study kind of experience, rather than maintaining the present practice of regarding it as a hothouse treatment for testing teaching skills. This means that the student would be expected to contribute something as well as to get something from student teaching. Thirdly, I think it might be possible to stimulate school study of faculty talent--particularly as we work in student teaching--and to assess whether talents are being used in the most effective way. In talking with public school people, it is often evident that they are not assigned to jobs in schools that make their talents visible or put their talents to use.

I think it might also be possible in student teaching to break down the isolation of the typical teacher in the classroom with the use of aides. There could be three adults in the classroom. Perhaps we should consider some cross-analyzing which would add still another adult in the classroom. One thing people could start immediately is to read the literature on differentiated staff.

In the more difficult category, I think we might promote examination of the effectiveness of present ways of teaching. In almost any classroom you walk into you can see how ineffective the system is because teachers talk most of the time and youngsters are supposed to absorb what is being said. I think it might be possible to do something through student teaching to ensure that students learn more than one way of teaching.

The typical college of education prepares a person to be a self-contained teacher--that is, to work in a self-contained classroom. If there were possibilities to work in teams, to work as a tutor, to have experience as a large group lecturer, to work with students on independent study, to diagnose individual student learning problems, to work as seminar leaders, and the like, I think we could break out of the lockstep we are in now in student teaching in teacher education.

We might also give student teachers an opportunity to work with aides to give them some managerial skill and to teach them ways in which they can use aides in their own teaching when they graduate. We could also attempt to analyze the job of the teacher and try to assign and evaluate roles assumed in terms of the outcomes that are produced. We could establish more flexibility in student teaching so that an individual would have experience with more than one teacher. Typically, student teachers work mainly and almost exclusively with one teacher. We could use them more creatively. We could train teachers to use other student teachers as evaluators. We could provide an internship subsequent to student teaching in a school where there is experimentation with differentiation of staff. This is actually happening in a few places.

Also in the difficult category, I think we might employ differentiated staff concepts at the college level. This will not be easy. We could try to get college teachers to demonstrate what we mean by differentiation of staff by the way they teach in college courses.

We could develop school pilot centers with all the components of the differentiated staff idea: the matter of competence, the matter of responsibility, and the matter of compensation. I think Dwight's model in Temple City, California, which calls for compensation in schools to range from $7,000 to $18,000 is not unreasonable. If you want to put it in terms of a ratio, top salary should be three to three and a half times beginning salary, provided the person has demonstrated competence and assumes the kind of responsibility that category of teacher demands.

We could promote research and trial of various models of differentiated staff. We could identify and employ different strategies for academic and performance requirements in teacher education. Most of pre-service teacher education now is merely a matter of knowing, and we use some less than adequate measure to determine that. We should get into the matter of performance curriculum where we are making an attempt to assess the performance of the student.

We could experiment with new ways of teaching performance skills. Things like microteaching and using videotape for feedback and analysis purposes in student teaching and in regular teaching would help, I think, in the analysis.

We might include an analysis of what differentiated staff roles might be with groups of youngsters in the histrionics of teaching. Many of us are poor actors. I am not suggesting that teaching is acting, but I would suggest it is deliberate behavior, or should be deliberate behavior, and in some cases it isn't that. We could develop some wild experimental models of learning centers, using a variety of professional, community, and lay people. And, most important, we could try to look at what the implications of differentiated staff are for the college in which we work.

Source: Staff Differentiation and the Preparation of Educational Personnel,

THE NEW CAREERS CONCEPT AND STAFF DIFFERENTIATION: SOME ISSUES

Arthur Pearl

I think both Dwight Allen and Roy Edelfelt gave you an over-varnished, much too optimistic statement of the current status of our schools. The schools are rotten and no matter what we are doing, they are getting worse. The schools are totally inappropriate and doing an infinitely bad job. Every day we are finding wholesale disengagement from the school process on the part of students, for the very good reason that there is nothing to engage them. Unless we begin to look at what is the nature of the school process in a highly complicated, technologically advanced society, we are not going to solve that problem. There is no way we can have staff differentiation in lousy schools. First of all, we have to find out how we are going to make those schools a little less lousy. They are very bad schools, and every day they get a little worse.

All of the tacticians don't improve them any. We have an enormous number of sophisticated tacticians in the school system now. We have computer-aided instruction. We've got a whole bunch of snake oil salesmen selling other slick articles for lousy schools.

Let's take a look at the goals of the schools--what the kid has a right to get out of the schools--and then what the staff ought to be. Every kid who goes to school nowadays has a right to expect something from his investment of time and energy, and he is getting cheated. He has a right to expect that as a consequence of going to school he is going to markedly increase his options on how he is going to make a living. Rather than getting this, students' options decline. From the very first day they start school, their options are being determined for them. When a person goes to school and is assigned to being a "bluebird," his life earnings are being immediately curtailed. We have no basis on which we can make that assignment with any kind of validity. The way we make that assignment now is by determining if a student looks, smells, and talks like us. If he does, we say he is bright. If he doesn't, we say he is dumb. And then we find something trivial to correlate our misconceptions with.

Now, it turns out there is an enormously high correlation between income and occupation and race in such assignments. Everything we do in school curtails occupational choice, whether we call it vocational education or special education. All of these are means by which we limit occupational choice, and until such time as a kid has a right to expect something from his investment in energy, I don't care how we differentiate staff.

The second thing a kid has a right to expect is to learn to be much more compatible with a democratic system. Being a citizen in a complicated society is a very challenging task. Nothing we do in the school prepares students for that task. In fact, the school is incompatible with democracy, and no system can prepare a person for a job that is incompatible with that job.

Every institution starts with a bill of rights. Students have no rights. Sometimes they manage to get by under a sort of benevolent dictatorship, but, by and large, they are at the mercy of the system. It is possible in a so-called free society for a kid to get thrown out of school because the principal doesn't like the way he wears his hair. That is happening every day. There are absolutely no rights for students, and of course, the poorer you are, the more impoverished you are in terms of being able to deal with the system. You might say that students have the right to have their parents take them out of public schools and put them in a private school in order to augment their education. The schools are not prepared for judicial, legislative decision making. In fact, they disregard that type of decision making.

The third goal of education is that it "turn on" cultural careers. The school should be a place that turns on kids, gets them excited about art, music, literature, science, history. This is not what happens in school. Schools are where students get turned off, where they lose interest in those kinds of things. As an example, take the teaching of English. If we played baseball the way we teach English we'd spend 12 years discussing an infield fly rule with no one getting to bat. And if you think we are bad in English, you should see how we teach history. All we do is teach kids a bunch of lies. The credibility gap of historians exceeds that of our national leaders.

Do you know how we teach science--science which should give kids an opportunity to get real exhilaration from essential discovery? Halfway through the experiment they discover that they have to clean up. That is all they discover. All they learn in math, which is the simplest, easiest think in the world to teach, is that it is hard. That is what we call curriculum. It's bad, and it gets worse every time we try to add to it.

There is no effort to deal with the real issues in school. School is a fraud. McLuhan is absolutely right. We have organised schools to be the place where kids go to have their education interrupted. And unless we begin to change that situation we are not going anywhere.

A fourth goal of education in a highly complicated society where 90 percent of us are going to live on 1 percent of the land in less than 30 years must be to prepare people to live with themselves and other human beings. There is no evidence that we have made any progress whatsoever in that direction. In fact, by every measure social pathology is on the increase. We have a greater incidence of drug abuse, a greater incidence of alcoholism, a greater incidence of suicide, a greater incidence of crime and delinquency, more racial tension. In anything that involves ability to live with oneself and other human beings, we are less adequate now than ever before.

On all the real issues, the school is irrelevant. Now we hear talk of what kind of staff we need to make a school relevant. We have to be accountable for everything we do. We have to justify everything in those schools every minute of the day. When kids ask a very relevant question, which they do every day: "Why do I have to learn that?" we have to give them honest answers. We have to stop being dishonest and irrelevant in our replies. It is irrelevant to tell a child, "Do it because I tell you. When I was your age, I didn't ask those questions." Or, "You'll need it when you grow up." That is not only irrelevant; it is a lie. There is nothing we teach in school a kid will ever need, and we ought to stop teaching it.

The most irrelevant education is taking place in schools of education. We don't have schools of education; we have a prison system. You do your time, you get your degree. None of the prevailing practices is defensible, but we have institutionalized them.

In the context of that, let's talk about differentiation between tactician and strategist. We need those kinds of people in the school. Let's talk about tacticians first of all. These are relatively low-level people, people who have mimimum experience. In fact we now know through a variety of experiences that eight-year-olds can be effective tacticians with appropriate supervision. We now know that many of the things we require graduate teachers to do can be done as well by an eight-year-old. As an example, I am working in an experiment at Stanford in which we have everybody in the sixth grade working with somebody two years younger. We ran into some difficulty. There was nobody in the fourth grade who knew less than two of the sixth-grade students. Such a relationship could not enhance the feelings of competence of the sixth-grade students nor help the fourth graders either. We wrestled with this problem for a long time, and then decided we'd make the two sixth-grade students part of the administration. It has worked out beautifully. They take care of the assignments, the recordkeeping, make sure that people get there at the right time, monitor the classroom, and so forth. All those things we ask a principal to do are being done by two sixth graders who have been labeled as mental defectives.

So we know there are an enormous number of things that people with relatively little skill, training or experience can do very well. We ought to be able to assign those kinds of tasks consistent with educational goals to persons with limited skill, training, and experience.

I would argue that about 80 percent of those persons we graduate from our schools of education in this country could be very good teacher aides. They would need a little help on their own in the classroom, but they could be good teacher aides. That is where they should be--serving as minimum-level tactical supports for students. They know a little more than the students, can share their knowledge and experience with the students, and can stimulate them to independent learning, but that is about all they can do, because that is all we prepared them to do.

Let's talk about the next level of instruction, a level that I would call a teacher assistant, a much higher-level tactician. This tactician should know an enormous amount about working with persons in groups. It is amazing how little our teachers know about group dynamics. In fact, in the classroom it is the teacher who facilitates the isolation of the non-learnable, because they don't know how to work with them in any kind of group process. Certainly anybody with two years of experience should be able to handle groups.

We know, for example, from a variety of experiments that prisoners in a California correctional institutional--persons with limited skill, training, and experience--within two years are excellent group leaders. They know how to handle groups and work with them in meaningful ways. They support each other rather than cannibalize each other. But we don't draw upon that experience at all.

With two more years--let's say the equivalent of a B. A.--we can talk about high-level tacticians, persons with a considerable amount of knowledge who supervise a whole staff of lower-echelon personnel, assign them on a differentiated basis to the kinds of things that need to be done each day. There are some days when a person with no more than a high school education could conduct a discussion before a fairly large group. Sharing information in a group this size is probably the minimal challenge of instruction--just to be able to say what one knows. Then there are other times when the teacher should work on an individual basis. The primary tactician would evaluate progress, have some idea of the use of media, and determine whether the program were consistent with the goals of education.

Then we can talk about the professor, who is primarily a strategist. He will plan for changes over time. He must be very sophisticated in evaluation techniques, be able to monitor what is going on, supervise the additional training that the lower-echelon staff will need to do a better job, continually incorporate into the educational process those new developments that at present don't get incorporated because nobody in the system knows how to use them. With such a staff organization we can talk about a school that is consistent with the world in which we live.

Let me talk for a few seconds about what a training model should look like. Higher education in this country was made obsolete with the invention of the printing press. It made sense to have the kind of schools of education we now have when there was only one book and people had to go to the book. But now books are relatively inexpensive, and we can bring books and instruction to the people.

If we are going to talk about any kind of educational training, we have to talk about domains of competence. What are the domains of competence a teacher must have? We can talk about lower-echelon domains of competence. There are at least three domains of competence we want people to have in order to teach.

We want them to have certain manipulative skills. That is, they have to do certain things They have to operate certain equipment. This will be particularly true as education becomes more technologically sophisticated. They have to be able to project themselves before people, and that is a manipulative skill. They have to be able to fill out certain kinds of forms, project certain kinds of information--simple manipulative skills. These can best be learned on the job. By and large, it is an on-the-job learning experience.

The second domain of skill involves the underlying theoretical components of teacher education. At present, our courses in learning theory and child development have no practical application for the teacher. We have a number of other courses in psychological fundamentals which no one ever uses. If you think this is not true, that I am exaggerating, go into a classroom and ask the teacher,"Why did you do what you did?" "What principles of learning or principles of human behavior were you operating with when you did that?" The teacher's response will invariably be one of bewilderment, because theory doesn't translate into practice due to the way we train people.

As an example of another way of doing things, let me report on a project I worked with in which we attempted to teach theory to a number of disadvantaged kids in the classroom. Rather than organize it in advance, we did it the other way around. As one kid working in the first grade said, "I know what one and one is, but how do I catch that kid running under the table and tell him?" What are the group dynamics processes you have to deal with? How does motivation enter into this kind of phenomenon? What things do we talk about in learning that might explain why this person is doing what he is doing and how should you respond? If the student doesn't respond, we must look for new clues and bring in other basic theoretical components of human behavior. What the teacher learns from this particular instance can be useful in future situations. We can set up a whole level of understanding depending upon the level of functioning that the teacher is working at.

The third component, and one we obviously are spending no time with, is developing interpersonal skills--skills which make it possible for teachers to negotiate contracts with kids. With all our technology, ultimately education will always fall down on the nature of the contract, the interpersonal contract between student and teacher. We are not developing teachers who can make any kind of contract, particularly with the increasingly large number of kids who are disengaged from the educational process. In a society in which education is so crucial there is no excuse for the existence of an adversary relationship between a teacher and a student. I don't care how disadvantaged kids are; they don't come to school to fight the teachers. They come to school to have the teachers fight them. It is the teachers who are declaring war on the kids, not the kids declaring war on the teachers.

How do we develop competence in individuals to negotiate contracts with kids? First of all, we have to talk about the subdimensions of the contract and how they should be taught. The first important subdimension is personal integrity. The teacher has to project that to every student. If you ask students--even student council members of the most advantaged high school in the country--"What is wrong with this school?" they'll reply, "We can't trust the teachers." What do they mean by that? They don't mean that teachers are evil or bad. They mean that teachers are impersonalized. They don't know the teachers as human beings. What does the teacher stand for? How does he relate to the student as a person? How does the student know where he stands with the teacher?

As a criterion for this, I ask teachers how many phone calls they get in the middle of the night from a student saying, "I'm in trouble." If you haven't had such a phone call from a student recently, you don't have any contract. The relationship teachers project at present can be interpreted as saying, "Don't call me in the middle of the night. Don't call me when you need me. I'm only there for you between eight and nin o'clock when I teach social problems; any other time I'm not there for you." That's no kind of contract. If we can't develop a contract, we are not going anywhere. You can't teach at the moment you are ready; you have to be there when they are ready. And you don't have to have five years of college to be a human being; there are a great many people who can relate to kids who have no college at all. These people are not necessarily a part of our educational process.

The second element of a contract is mutual sharing. A contract is a reciprocal relationship. The teacher's contribution is his willingness to share valuable knowledge and experience.

In order to do that, the teacher has to be able to convince the student that his knowledge is valuable. If he can't convince the student of that, there is no contract. Secondly, the teacher must in fact have enough knowledge to make it worthwhile for the student to sit around and have a relationship with him. Third, this knowledge must be transmitted in language the student understands. If the teacher cannot do any of these three things, there is no contract. My job in teacher education is to train teachers to do all these things.

Not only must the teacher project himself to the student as a human being, but he must also understand the particular "hangups" of the student. Rather than helping teachers be more adept in this art, we have equipped them with a set of useless mythologies. We talk about the inadequacies of students. There is nothing wrong with any of the kids; the fault lies with the school. There are three reasons why kids become disengaged from the school, and they are all controllable within the school.

Students will become disengaged when they have no feeling of competence. Therefore, we must do everything we can in the schools to make kids feel more competent. Every time we demean them by calling them incompetent, we increase the likelihood of their becoming disengaged. We do a great many things in school that tell kids they are not competent. We do few things to increase their feelings of honest competence.

The second thing we must do is increase students' feelings of belonging. The school is there for them. We lock doors and do a lot of other things that make students feel that school is not for them. It doesn't matter what group of students you talk to; all will say that the school belongs to the adults. Very few say, "It is my school."

The third thing a teacher must do is allow students a feeling of contribution. Students must feel that by going to school they are able to utilize their learning to help others. As teachers learn to handle these three gratification systems, most of the disengagement which we now attribute to factors outside the school will go away. But as long as we deal with mythologies, we will get nowhere.

Now, let us consider management skills. The school of today is a complicated social organization. We don't know how to deal with complicated social organizations. Administration is a farce. We don't have any administration in the schools. We have nonadministration in schools. Essentially administrators tell teachers that they are absolutely free citizens to do anything they want, so long as they don't get into trouble. If they do get into trouble, the administrators offer no help. Until we change this situation, we will not have good schools. We will still have a bunch of independent people struggling desperately for survival, and the victims of that process are the kids. In today's world we can no longer tolerate that kind of irresponsibility.

I don't think any of us really has a sufficient sense of urgency, a sense of how bad the schools are and how fast they have to improve. We are going to have a lot of kids getting themselves badly battered this year, and many of them are going to die. A fantastic number are going to blow their brains out with hallucinogenic drugs. We have a widescale rebellion of kids with IQ's of 140 in almost every area of the country, and it is getting worse every day. Unless we talk about staff differentiation and making the school relevant we are not going to get very far.

Let me just say one last word. It is impossible to talk about immediately effecting all the changes that have to take place in schools. We have schools that, in effect, have to be almost completely rebuilt. We must realistically consider a strategy for implementation. We have to be strategists at that level, too. We can't completely tear down what we have; but we can talk about a strategy for change that is based on the establishment of a variety of beachheads. We can talk about support for those people who are ready to move. We can talk about a strategy that takes advantage of various approaches. On the basis of some sort of standardized evaluation strategy we can see what the relative merits of each are in certain situations. That is the way we have to proceed.

The EPDA has certain advantages, but in terms of the amount of money really needed to do the job it is a pittance. We can't afford to pass out money to everyone whether or not he has worthwhile ideas. That kind of thinking cannot be afforded on the limited money we have. We have got to talk about beachhead strategies and invest in the people willing to pioneer for it. We have to ask would-be project directors to articulate what they want to do in precise terms, and we must rigorously evaluate the different ideas to their relative worth.

Many of the things I have said may be wrong. But they probably aren't as wrong as many of the views that they are designed to replace. In the process of testing them out, we will reach the next level of hypothesis and come closer to discovering how to do a job that must be done.

Source: Staff Differentiation and the Preparation of Educational Personnel,

TOOLING UP FOR THE EPDA: A CASE STUDY

E. Brooks Smith

I intend to take an evolutionary approach to this problem; we have had the revolutionary approach. A number of the projects that Arthur Pearl and Dwight Allen discussed seemed to me revolutionary or radical approaches. They have been showing us possible ways to break through, and I think we need this kind of approach. But I also think that now is the time for a synthesis of these breakthroughs in order to see if we can put the picture together. One way to do this is by an evolutionary process, by seeing if we can move forward by making strategic alterations in the programs we presently have, both in the schools and in the colleges and universities.

It would be just great if we could throw them all out, clean out the Augean stables and start all over again, but life is never that way. We have to start with what we have, and my proposal is to see if we can begin to think in these terms in considering education professions development.

The labels in teacher education are moving around as fast as the style in women's skirts. Yesterday it was teacher training, and the day before yesterday it was teacher education, but today it is teacher training again. Tomorrow it is going to be education professions development. As everyone knows who keeps up with the grantsmanship gossip, the term teacher education is not very popular today; you'd best replace it with teacher training or professions development if you expect to make any headway.

Seriously, though, the times are too hazardous and too crucial for a battle of terms between the old and the new establishments. In the long run the new establishment has to use the old establishment to accomplish its ends. All should begin working together in the new frame of reference denoted by the term professions development, maybe the one which can embrace the two camps and bring national focus to the effort at improving the preparation of professionals for education.

Both the old and the new camps have a special focus which needs to be incorporated into a total concept of professional education. Teacher training, yesterday and today, deals with technique and accomplishment. Those who embrace this view see teaching as mainly a repertoire of techniques of possible behavior for managing a class, presenting new material, engaging pupils in dialogue, summarizing activities, and so forth. In the old days the teacher trainer talked about a bag of tricks. Today he talks about the utilization of various tools that make up the teaching act and the training of young teachers step by step into these essential skills. This is a great achievement.

Teacher education, on the other hand, describes the business of learning to teach from a slightly different posture. Its connotation suggests that the teacher should work from the principles and concepts about teaching and learning which he gains through the study of child development, social psychology, philosophy, etc., and should relate these to direct experience in the school settings. The term seems also to imply that the teacher must be highly educated in a general way to take the position of an educational leader in the community. The teacher, as someone has said, always should be in a state of learning.

The term education professions development adds a new dimension and perhaps embraces both the other concepts at the same time. The added dimension stresses professionalism and continuous development. The "s" on "professions" is out of recognition of the differentiated tasks and various roles in the educational enterprise. Certainly, to be a true professional, as in law or medicine, one must be educated. One never hears the terms medical or law training; rather one hears medical education and legal education. Training for the bench includes understanding law, society, and culture. Cases are analyzed not only in legalistic terms, but in terms of the values of society. Just so, the analysis of teaching acts must embrace questions of truth and value. Good microteaching can assist in such a process of professional education.

The term education professions development can be a useful one, and I found it so when I heard Donald Bigelow at the Austin Conference on Innovations in Teacher Education. It permits the planner of professional programs to consolidate and interrelate the education of all school personnel as never before. It also suggests the need for closer collaboration between university and school and other professional agencies. It forces one to look anew at the roles in the education enterprise to see if they are effectively delineated.

It seems to me that the way we should move in this evolutionary process is to alter some aspect of the program which will strategically affect other elements of the program. Those people who agreed with the alteration in theory will be compelled to move. Take the field experience component, for example. Speaking from a university department point of view, there are things that can be done to begin to move not only college personnel but school personnel as well into looking at the whole thing in larger terms. This sort of thing has happened when we have placed an undergraduate team internship structure in an ongoing school setting.

People seem willing to accept alteration of the teacher preparation structure much more readily than alteration of the classroom structure itself, because supposedly you are not tampering with the classroom; you are altering only teacher education. When the altered teacher education structure begins to function, it begins to force changes in the classroom setting and changes in the way the teachers are functioning. Resistance seems to wear off as people begin to get interested in the differentiated tasks that are developing in that team unit or module.

Conversely, the need for further changes becomes apparent back at the college, because the interns begin to demand changes in seminars and methods courses in view of their relationship to what they are doing. So we end up altering the curriculum area courses. When you have enough interns located in neighboring school settings, you can afford to take various elated courses off campus and offer them right in the school setting. Once a course moves off campus into the school setting--even if taught by the same people--it begins to alter. Attention begins to focus, for example, on the inner-city problem in which several of these team internship modules are located.

One problem associated with this approach is that is postulates a new kind of school and school activity. But I still think the way to accomplish these changes is to get started with the teacher education program and begin to move ahead. I have a feeling that it will have a merging influence on other aspects of the program, especially if it involves some of the lively young teachers in the school setting and gives them an opportunity to carry out experimental work.

I think that our own operational experimentation should follow the flag, as it were, of the teacher education experimental projects, because if you carry your staff into those modules of teacher preparation, you then can carry into those modules the operational experimentation in curriculum. You may want to deal with certain language questions in the inner city, learning to read--this kind of thing. The college professors and school supervisor might work together in this teacher preparation module and begin to experiment and involve the interns and the student teachers, as well as direct teachers in the experimentation. We are beginning to see a little of this working in the linguistics area, and it does hold promise.

I think I'll close with the observation that there is promise if we will go to work and use an evolutionary approach to development in teacher preparation. Hopefully, this will influence the school setting in which these experimentations take place.

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PROPOSAL: PERSONNEL DEVELOPMENT LABORATORY FOR ONONDAGA AND OSWEGO COUNTIES

A. STATEMENT OF NEEDS

A Personnel Development Laboratory will be established to meet the following major needs:

1. The identification, recruitment, and training of persons from outside the field of education to alleviate the shortage of qualified professional and semiprofessional educators in the region, and,
2. The development of a program of continuing education for newly-qualified and experienced professional and semiprofessional educators which will meet the needs not currently being met by traditional in-service education programs.

The shortage of qualified professional and semiprofessional personnel in the region has been well established by chief school administrators and other administrative personnel responsible for the recruitment of personnel in the 28 school districts of Onondaga and Oswego Counties. It is estimated that approximately 10 to 12 percent of the available teaching positions in the two-county region are currently either unfilled or are filled with non-qualified or non-certificated personnel due to this shortage. At the same time, evidence supports the assumption that in the private sector of business and industry, a substantial number of individuals exist who have the skills or behaviors necessary to function effectively in an educational setting. A search of the literature discloses few, if any, programs which are directed at the development of techniques for the identification of these non-educators.

STATEMENT OF NEEDS (Continued)

At the same time, in-service education has traditionally not met all of the needs of all of the teachers in any school district. Many excellent programs are designed to provide single experiences to large numbers of teachers, but individual teachers with specific needs are often overlooked since to design programs to meet their needs would over-extend the financial ability of the school district to support the variety of programs required. With the growing emphasis on the individualization of instruction within the school, and the differentiation of teaching roles, it becomes apparent that programs of in-service education should provide individualized experiences for the professional and non-professional staff members of a school. Since most school districts cannot provide the variety of programs which would be required in individualized or small group situations, a need exists for a regionalization of in-service programs which would allow the educators from a number of districts who exhibit similar needs to come together for programs to meet these needs.

The Personnel Development Laboratory is intended to demonstrate the effectiveness of a regional approach to in-service education in which the staffs from all of the districts served can be brought together and individualized programs can be developed. The Personnel Development Laboratory will also assist school districts in the identification of needs in the definition of objectives and strategies and in the design of continuous progress programs for staff development.

In addition to these major needs, the Personnel Development Laboratory will demonstrate the effectiveness of combining local, state, federal and other sources of financial support in the development of pre-service and in-service education programs. The Personnel Development Laboratory will also assist in the development of better coordination between school districts and institutions of higher education in the expansion of in-service education programs for teachers. It will explore ways to restructure school staffing to include the use of semiprofessionals in education in order to make teaching more effective and in order to improve the ability of administrators to make discriminating judgments about the qualifications of personnel in teaching and for their identification, selection, recruitment, placement and evaluation.

B. OBJECTIVES

The objectives of the Personnel Development Laboratory are:

1. To establish programs for the identification, recruitment, and training of persons from outside the field of education who will enter the field at either the professional or the semiprofessional level with particular emphasis placed on the under-employed minority groups.

2. To establish programs for the continuing education of newly-qualified and of experienced professional and semiprofessional educators which will enable them to move along the career development spiral of the ECCO model of differentiated staffing.

3. To establish programs for the study of organizational structures, organizational climates and learning environments which support the differentiation of teaching roles.

4. To establish programs for the study of the evaluation of personnel, programs and learning environments as they affect the career development of educators.

5. To establish programs for the development of new organizational structures based upon differentiated staffing patterns and the changing role of the teacher.

The program of the Personnel Development Laboratory will reflect an emphasis on the concept of individually prescribed continuous process in the continuing education of educators. They will provide a means for demonstrating a comprehensive regional approach to the improvement of pre-service and in-service education programs which will have broad implications for a variety of applications in other geographic regions of the state and the nation. In general, the programs of the Personnel Development Laboratory will be designed:

OBJECTIVES (Continued)

1. To provide specific experiences to meet the needs of a selected group of participants as they assume new roles in education.

2. To design programs in such a manner that all components complement and reinforce each other in a continuous process of career development.

3. To provide experiences that are directly related to specific behavioral changes and which allow the participants to practice newly-acquired skills and to transfer them into classroom application.

4. To use and demonstrate technological advances such as simulations, systems analysis and closed-circuit television, programming advances such as self-directed learning and individually prescribed instruction and administrative techniques such as PERT (Program Evaluation Review Technique) and PPBS (Planning, Programming, Budgeting System) in continuing education settings.

The Personnel Development Laboratory will also explore ways in which local educational agencies may participate more significantly in the certification of educational personnel.

C. LABORATORY ORGANIZATION

I. General

The Personnel Development Laboratory will be organized into five major components.

- a. Program Coordination Section
- b. Personnel Development Study Center
- c. Resource Materials Center
- d. Learning Environments Study Center
- e. Evaluation Study Center.

The Laboratory will commence operation on February 1, 1969, and will continue its operation until June 30, 1973. This time period will cover both pilot and operating stages. The Laboratory will be developed in a series of stages. During Stage 1, i.e., February 1, 1969, - June 30, 1969, the Program Coordination Section will be established, will develop initial programs for the Laboratory and will test these programs in pilot operations. During subsequent stages, further program development within the Laboratory as well as program operation will take place.

During the initial stages of development, assistance and cooperation from school districts and other participating institutions will be solicited and programs will be defined in order to meet the objectives identified by participating school districts. Coordination will take place between the Personnel Development

LABORATORY ORGANIZATION (I. Continued)

Laboratory and the Regional Educational Center to establish procedures for the further involvement of school districts and of Boards of Cooperative Educational Services in the Laboratory program. The Laboratory facility itself will be established during this period in order that it be ready for the beginning of Laboratory programs.

Procedures will be established during the initial planning stages of the Laboratory and during its operating stages for the transfer of funding support from federal sources to local sources. It is anticipated that after the initial period of operation, many of the programs of the Laboratory will be supported by the local school districts through Boards of Cooperative Educational Services of Onondaga and Oswego Counties. Additional sources of funding will be solicited by the Laboratory through the Educational and Cultural Center, a non-profit educational institution chartered under Section 216 of the Educational Laws of New York State.

C. LABORATORY ORGANIZATION (Continued)

II. Program Coordination Section

The Program Coordination Section will have the responsibility for the management and scheduling of activities within the Personnel Development Laboratory as well as the responsibility for all dissemination activities within the organization. The Program Coordination Section will assist the other operating components of the Laboratory in the development of programs and will assist school districts in the region in the implementation of Laboratory programs.

C. LABORATORY ORGANIZATION (Continued)

III. Personnel Development Study Center

A Personnel Development Study Center will be established within the Personnel Development Laboratory to support the participating school districts in the analysis of differentiated roles for educators and to develop programs which reflect this changing role. The objectives of the Study Center are:

a. To develop processes for the identification and analysis of the behavioral dimensions of educators who demonstrate differentiated teaching competencies and to design through synthesis hypothetical models of these educators.

b. To develop a process for the design of programs to modify the behavioral dimensions of educators.

In the context of the programs of the Personnel Development Study Center, the term EDUCATOR refers to the total hierarchy of educational positions within a school organization. Although the definition excludes certain supporting personnel per se, namely, custodial staff, office staff, and cafeteria staffs, the concepts described within the Career Development Model for Differentiated Roles in Education developed by ECCO, considers the possibility of such supporting personnel entering into the career development spiral as semiprofessionals or as professionals in education. The programs of the Personnel Development Laboratory will, in effect, result in the establishment of parallel tracks for the development of semiprofessionals and professionals. In fact, the resources represented by the Semiprofessional Training Project (Career Line Training for Semiprofessionals in Education, OEG-704072) will be applied to those portions of the program of the Personnel Development Study Center which are most directly related to the career development of semiprofessionals in education. The programs which will be instituted for the semiprofessionals in education and for professionals in education will serve four primary purposes:

a. The development of processes for the identification and analysis of behaviors.

b. The identification of selected behaviors which support the differentiation of staff.

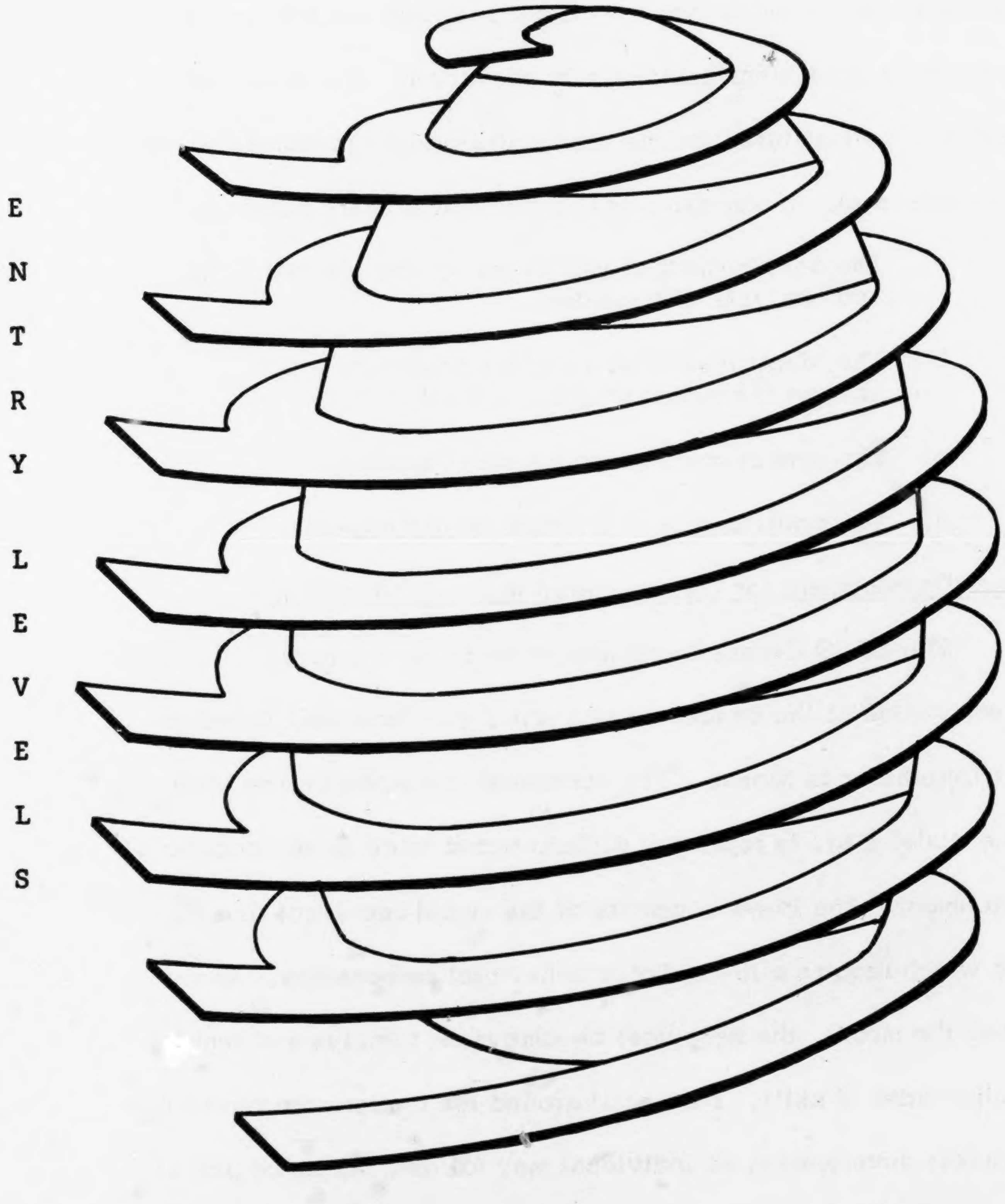
c. The construction of hypothetical models.

d. The modification of progress of participants.

Career Development for Differentiated Roles in Education

The ECCO Career Development Model is a graphic representation of the concepts upon which the Personnel Development Laboratory is formed. The horizontal divisions on the body of the model (Fig. 1) represent differentiated roles in an educational environment. The lower segments of the model represent those roles which require a low order of behavioral competency. As we ascend the model, the behaviors become more complex and require a higher order of skill. The spiral around the center core represents the career development an individual may follow. As he begins at the bottom of the model and moves progressively through its various

CAREER DEVELOPMENT MODEL
FOR
DIFFERENTIATED ROLES IN EDUCATION



DEVELOPED BY THE EDUCATIONAL AND CULTURAL CENTER
SERVING ONONDAGA AND OSWEGO COUNTIES (E.C.C.O.)

FIGURE 1

segments, he develops higher orders of skills and is able to assume more specialized positions in the hierarchy. To the left are a series of entry levels which suggest that an individual, possessing behaviors similar to those represented at any point on the model, may enter at that particular level. It is also possible for an individual to skip many of these entry levels and to occupy higher level positions dependent only upon the kind of behaviors necessary to function at that level.

The ECCO Model serves as a vehicle for the analysis of the roles of educators within a school staff. After a school district has identified those staff members whose work with students has produced higher quality results than ordinarily expected, based on performance, the educators so identified may be considered as differentiated educators. They may then be placed in a position on the model commensurate with the role that the total staff of the district has selected as being most appropriate for them. The implication,of course, is that a teacher who demonstrates a higher order of behavioral skills than another may be capable of meeting the education objectives of the school district. The model further implies that an individual, by improving his skills and his behavioral competencies, may be able to move from lower order roles to higher order roles within the structure of the school.

While the ECCO Model is most effective if no characteristic names are applied to the various levels within it, a description of the variety of roles will demonstrate its validity. If the role assigned to the lowest level in the model is that which is normally assigned to the traditional teacher's aide or clerk, then a higher level may be assigned to the role of special aides such as guidance aides or teacher's assistants who require a higher order of skill. Still a higher level may be assigned to the semiprofessional technicians who, again, demonstrate higher order of skills and perhaps a higher level of educational preparation.

In terms of professional staff, a lower order role may be assigned to a student teacher, teacher or educational intern with higher order roles assigned to classroom teachers, team leaders, department chairmen, and master teachers. Each of the roles will, by necessity, require the demonstration of particular behavioral skills with higher order roles requiring higher order competencies within the behaviors.

The main purpose of the Personnel Development Study Center is to analyze the roles of the differentiated educators that presently exist within school organizations and to identify the behavioral characteristics which they demonstrate. Having been identified, differentiated educators will assist in the study of the roles they perform and in the development of comparable competencies in educator-trainees. Interns will be assigned to assist them in the development of the behavioral competencies in the educator-trainees and in the creation of a true hierarchy of roles based upon differentiated behaviors rather than on experience or educational qualifications.

The transmission of behaviors between the differentiated teachers and the educator-trainees will be accomplished through the use of such techniques as mini-courses, micro-teaching, clinics, sensitivity sessions and simulation. These experiences will be directly related to specific behavioral changes. Schools desiring complete staff differentiation would identify a sufficient number of models of differentiated educators to meet the behavioral criteria established by that district. These models would then be placed at levels commensurate with their abilities and the objectives of the district. The experiences necessary to develop the behaviors which will result in mobility along the continuum of personnel development will be provided by the Personnel Development Study Center, based upon individual prescriptions. Within this conceptual framework, it is theoretically possible to begin at the bottom of the spiral and to move through a progression of experiences designed to develop appropriate behaviors and eventually to occupy any position which requires a higher order of behavior. There can be continuous input into the model from both teacher training institutions and from occupational fields outside of the field of education.

The ultimate goal of the Laboratory is the development of a total immersion simulation which could be experienced by any school district. This total immersion simulation or "mini-school" would involve cooperative experiences for educators, students, administrators, parents and community organizations as they affect the teaching - learning environment. A school district having studied the differentiation of roles within its organization could simulate an entire experience prior to the establishment of total differentiation within the district. In the mini-school concept, classes might be organized in a school building during a period when the facility was not otherwise occupied, with five or six students per class rather than the usual 25 - 30. The normal administrative organization of the school would be established to support the instructional program being simulated. Other members of the community, including school boards and parents, would act as observers of the process and identify problems that become apparent in the educational program and react to them as they would to a fully-operational program. The mini-school could operate for any length of time. At the end of the simulation, the entire group of participants would interact in order to "debug" the process. Thus, it is possible to identify problems that could be resolved before going operational by using this type of simulation.

The Career Development Model for Differentiated Roles in Education has been discussed with a number of organizations which are expressly interested in the problems of in-service education for teachers. The U. S. Office of Education has indicated, through the director of the Division of Program Resources, Bureau of Educational Personnel Development, its interest in the exploration of programs to support the career development model. The Associate Commissioner for Personnel Development, U.S.O.E., will support the Laboratory through the assignment of consultants for program development. The National Education Association will support the programs of the Personnel Development Laboratory through the TEPS Commission and through its project, Staff Development Schools. The Laboratory has been invited to apply for direct participation in the Staff Development School Project as a demonstration agency for differentiated roles in education. The Division of Teacher Education and Certification, New York State Department of Education, has indicated its willingness to support the program of the Laboratory with consultant assistance and has already supported one of the pilot activities of the Laboratory, namely, the Fly-In Conferences on Educational Innovations, through the application of LOIS Funds. Programs of the Personnel Development Study Center will be made available to interested districts of New York State through the Division of Teacher Education and Certification.

Program

The program of the Personnel Development Study Center will take place in three phases:

PHASE I

a. The identification and selection of participating school districts.

b. The identification and selection of teams.

c. The development of criteria for the selection of differentiated educators.

d. The application of criteria by teams and the identification of differentiated educators.

e. The analysis of behavioral characteristics of differentiated educators.

f. The selection of differentiated educators for Phase II.

g. The assignment of interns to each selected differentiated educator.

PHASE II

a. The establishment of differentiated educator-intern teams.

b. The development of programs to extend the ability of the differentiated educator.

c. The selection of educator-trainees to work with differentiated educators.

d. The selection of specific behaviors to be developed by the selected educator-trainee.

e. The establishment of programs to facilitate the development of behaviors as pilot and as operational programs.

f. The evaluation of progress of selected educator trainess.

PHASE III

a. The analysis of the behaviors transmitted from the differentiated educator through the educator-trainee and the development of supportive programs to extend competencies.

b. The generalization of processes developed to other behavioral dimensions of differentiated educators not transmitted.

c. The evaluation of the effectiveness of the total program for the establishment of differentiated roles for educators.

Process

A. Identification and Selection of Participating School Districts

The chief school administrators of the public and non-profit private school districts in Onondaga and Oswego Counties will be invited to participate in a preliminary conference to discuss the program of the Personnel Development Laboratory. Following this conference, chief school administrators will be invited to submit letters of application indicating their desire to participate in these programs. The letter of application will include a statement of the objectives of the school district and an explanation of how the programs of the Laboratory could be incorporated into the district's plans of staff development.

A screening committee selected from the Board of Directors of the Educational and Cultural Center and the Laboratory Staff will select school districts to be included within the program and will assign them to one of the three groups according to the following schedule:

	1969		1970		1971
	Spring	Fall	Spring	Fall	Spring
Group A	Phase I	Phase II	Phase III		
Group B		Phase I	Phase II	Phase III	
Group C			Phase I	Phase II	Phase III

B. Identification and Selection of Teams

Each participating school district will inventory its semi-professional and professional staff and select a team of educators to represent the district. The members of the team should:

1. Indicate an interest in participation in the program.
2. Indicate an interest in assisting in creating change in their district.
3. Demonstrate an ability to work as a team member.
4. Be able and willing to express their feelings and opinions freely.

5. Be able to communicate their finding and information to their own school district.

6. Be recognized by their colleagues as reliable semiprofessionals or professionals.

C. Development of Criteria for the Selection of Differentiated Educators

Each team will develop a set of criteria for the identification of differentiated educators and will identify educators from within their district whose work with students demonstrates a higher quality of results than is generally produced. The criteria will be based upon performance and experience rather than academic credentials. The team will utilize the work of Taba, Woodruff, and Bloom and Krathwohl for the identification of desired behaviors and as the basis for the selection of instruments for observation.

In effect, the team will ask a series of primary questions.

a. What are the real objectives of education?

b. What behaviors demonstrated by educators will best meet these objectives?

c. Which staff members in our district demonstrate these behaviors most effectively?

d. How are the minimum acceptable competencies for beginning educators different from those expected of experienced educators?

The individuals identified through this analysis will be referred to hereafter as differentiated educators.

D. Application of Criteria and Identification of Differentiated Educators

Having identified the criteria for selection, each team will establish its own procedures for their application. The teams will identify one or more differentiated educators from among the staff of their school with the assistance of the personnel of the Personnel Development Study Center.

E. Analysis of Behavioral Characteristics of Differentiated Educators

The analysis of differentiated educators will be conducted by the staff of the Personnel Development Study Center. This analysis will define the behavioral characteristics of the selected differentiated educators and the degree to which they are held. Specially qualified clinicians will place the demonstrated behaviors along the spiral continuum of the ECCO Model.

F. Selection of Participating Differentiated Educators

The differentiated educators identified in the earlier stages of Phase I will be exhibited to the school teams by use of video tapes, micro-teaching, or other means, and teams will select the model of differentiated educators which they deem most appropriate for their school district and its programs.

G. Assignment of Interns

Interns will be selected from among the school staff of the participating districts and will be assigned to work directly with the differentiated teachers. In addition, selected individuals from outside the field of education who demonstrate behavioral skills comparable to those held by the differentiated educators will also be assigned as interns. These individuals may be drawn from business and industry and may also represent retired Armed Forces personnel, industrial executives as well as recent graduates from programs other than education.

Area colleges and universities with teacher training programs will be solicited for the purpose of assigning student teachers in school to work with the differentiated educator and his intern. These assignments will be made by the staff of the Personnel Development Study Center in cooperation with the differentiated educator, appropriate school authorities and representatives of the institutions of higher learning. Semiprofessionals may also be assigned to work with the differentiated educators whenever such arrangement is deemed appropriate.

PHASE II

A. Establishment of Differentiated Educator-Intern Team

The differentiated educator and the assigned intern will receive an orientation designed to insure that each understands his own role and responsibilities in the program. An important aspect is the development of mutual respect and understanding.

B. Extension of Abilities of Differentiated Educators

The differentiated educators will be involved in a program designed to assist them in their work with other educational personnel and to expand their own abilities. They will proceed through a series of experiences which will sensitize them to their own behaviors as they affect group process. Other experiences will be provided which will assist them in the development of skills in communications and as change agents.

C. Selection of Educators-Trainees to Work with Differentiated Educators

Each school team will, with the assistance of the Personnel Development Study Center staff and differentiated teacher, select other staff members to participate in the program. The selection of these educator-trainees will comprise an important aspect of the total program. They should be capable of handling diversity and should be open to new ideas and frames of reference. It is anticipated that the educator-trainees will be near the beginning of their professional careers and that careful consideration will be given to their assignments.

D. Establishment of Specific Behaviors to be Developed

During the initial stages of the program in the Personnel Development Study Center, an analysis of desired behaviors will result in the selection of those behaviors which are characteristic of effective differentiated educators. The analysis will define those behaviors which are considered to be minimum for persons new to the field of education as well as those expected for experienced educators. On the basis of these descriptions, the staff of the Personnel Development Study Center will develop specific descriptions of the selected educator-trainees prior to their involvement with the differentiated educators. These descriptions will include an analysis of existing behaviors for both the educator-trainee and the differentiated educator and an analysis of the differences between them. This analysis will serve as the basis for the development of individualized prescriptions for experiences designed to produce the desired behaviors in the educator-trainees.

E. Pilot and Operational Programs

The Individual Prescriptions will be administered through the Study Center and may take place in either the Laboratory facility or in the school. The program will be tried first on a pilot basis and then on a fully-operational basis.

F. Evaluation of Progress of Participants

Continuous evaluation will be made of the educator-trainee for the purpose of:

1. Modifying the individual prescription as deemed necessary.
2. Modifying the total program of the Personnel Development Study Center.

PHASE III

During Phase III of the Personnel Development Study Center, the staff will work directly with the total group to identify those competencies which are being transmitted to the educator-trainees and for the development of supportive programs to fully develop and extend the competencies and behaviors deemed desirable. They will also study the differentiated teachers to determine if additional competencies and behaviors have been developed and will modify programs to take advantage of those newly-developed competencies which are deemed desirable.

In essence, Phase III will result in the development of a program to support and further extend the competencies of differentiated educator, the educator-trainees and the interns.

Subsequent Development

Since the first three Phases of the program of the Personnel Development Laboratory and its Personnel Development Study Center will involve only a limited number of school districts and educators, further development will be required in order to extend these activities to the districts which were not selected as participants for the initial programs. It is anticipated that school districts, having gained experience with the analysis of behaviors through participation in the programs of the Personnel Development Study Center, will continue to support its operation by the further definition and refinement of objectives for their staff development programs, and by the establishment of needs which can be met through the Laboratory. Information concerning the activities of the Personnel Development Study Center will be disseminated through all school districts in the region even though some will not participate in the initial stages. Cooperation between school districts in the establishment of inter-district programs will be solicited.

C. LABORATORY ORGANIZATION (Continued)

IV. Learning Environment Study Center

A Learning Environment Study Center will be established within the Personnel Development Laboratory to support the operation of the Laboratory through the study of organizational structures, organizational climates and learning environments of educational institutions as they affect the career development of educators.

The personnel of the Learning Environment Study Center will:

1. Identify and analyze the organizational structure, organizational climates, and learning environments of existing institutions, and,
2. Design through synthesis, hypothetical models of institutions which support the demonstration of differentiated teaching competencies.

The Study Center will develop processes for the design of programs for the establishment of organizational structures, climates and learning environments which support differentiated teaching competencies and will test the validity of the design, by assisting participating school districts in the design of programs for the modification of these parameters in light of their own needs, goals, and objectives and in the selection of strategies for the implementation of these programs. The Study Center will build upon the theories of formal organization, the anatomy of organizations and the theories of informal organization as they affect the organization of educational institutions.

C. LABORATORY ORGANIZATION (IV. Continued)

The study of organizational climate will build upon the theoretical frameworks established by Helpin and Croft, and Stern and Steinhof, and upon the developmental work of Randels.

The Study Center will draw upon the resources of the Council of Educational Facilities Planners, the Educational Facilities Laboratory, and the Division of Facility Development, USOE, and the Travelers Research Center in the identification of characteristics and the design of creative learning environments which support differentiated teaching competencies. The staff of the Learning Environments Study Center will be assisted in the design of learning environments by such organizations as the Center for Architectural Research, Rensselaer Polytechnic Institute, the School of Architecture, Syracuse University, the Division of Educational Facilities Planning, New York State Education Department, and the Architectural Firms of Sergeant-Webster-Crenshaw and Folley and King and Associates.

The staff of the Learning Environment Study Center will consist of one specialist in organizational structure and one specialist in the design of learning environments. They will be assisted by consultants drawn from local education agencies, institutions of higher education and business and industry.

C. LABORATORY ORGANIZATION (IV. Continued)

In addition to the primary function of the study of learning environments, the staff of the Learning Environment Study Center will develop strategies for:

1. The design of community services for children and adults in public education, adult education, informational services, guidance services and the like,
2. The maximum sharing of community facilities and programs for education and other public departments and services.
3. The exploitation of the economies in educational programming, curricula, facilities and space.
4. The development of efficient and responsive administration of educational facilities.
5. The distribution of facilities to maximize utility functional and social interaction, and integration.
6. The availability of facilities, services, and opportunities to residents of other communities.
7. The development of meaningful participation of the community in the plans, design and operation of educational systems.
8. The design of a system of education based upon a total community concept.

Liaison has been established with the Division of Facilities Development, Office of Construction Services, U.S. Office of Education. The Division will make available to the Personnel Development Laboratory the resources of its library on learning environments, as well as consultant services from its staff. These will be at no cost to the project and reflect a contribution in kind by USOE. The team leader and assistant team leader of the Learning Environments Study Center will, by direct invitation of the Office of Construction Services, participate in a series of national conferences on the total community approach to the design of learning environments.

During the initial stages of the development of the Laboratory, the Resource Materials Center will collect and catalog information and materials in the areas of organizational structure and climate and learning environments under the guidance of the Associate Director for Program Development of ECCO, a member of the Council of Educational Facilities Planners contingent upon further involvement in Onondaga County New Town. The staff of the Learning Environments Study Center will work closely with the Metropolitan Development Association and the Urban Development Corporation in the development of strategies for the design of educational systems based upon total community concept.

C. LABORATORY ORGANIZATION (Continued)

V. Evaluation Study Center

An Evaluation Study Center will be established within the Personnel Development Laboratory to support the operation of the Laboratory through the study of strategies for the evaluation of personnel, programs and learning environments. Specifically, the personnel of the Evaluation Study Center will:

a. Investigate the process of behavioral change as it affects educational programming.

b. Develop strategies for the identification of needs and goals.

c. Develop techniques for the identification and description of valid objectives.

d. Develop techniques for the establishment of performance criteria.

e. Develop techniques for the identification, selection and description of alternative strategies for the evaluation of educational programs.

f. Develop techniques for the design of evaluation systems.

g. Develop materials to support the training of personnel in the design and implementation of programs leading to the evaluation of personnel, programs and learning environments.

The programs of the Evaluation Study Center will be developed by a team consisting of a team leader who will also serve as the Associate Director for Evaluation of ECCO, and a half-time intern assigned from the Division of Educational Research, State Education

Department. The program will draw upon the services of the Center for the Study of Instructional Program, University of California at Los Angeles, and the Center for the Study of Evaluation, Ohio State University. During the initial stages of development, the staff of this Education Evaluation Study Center will be concerned with the objectives listed in (a) through (d) above. During later stages, the staff will be concerned with objectives (e) through (g).

The staff of the Evaluation Study Center will work closely with the personnel of the Resource Materials Center in the identification and collection of materials to support the development of evaluation programs.

VI. Personnel Development Resource Center

A Personnel Development Resource Materials Center will be established within the Personnel Development Laboratory and will serve the Laboratory, the local school districts of the two-county region and the Division of Teacher Education and Certification of the New York State Department of Education. The Resource Materials Center will provide the personnel and facilities to:

1. Collect, catalog, house and circulate all available materials, both print and non-print, to support the operation of the Personnel Development Laboratory.
2. Serve as a depository for available materials necessary to support studies in staff development and learning environments.

The personnel of the Resource Materials Center will, in addition, serve as consultants to the Laboratory operating personnel and its trainees on the availability of materials, will assist in the development of continuing education programs for educators and will support the operation of the Laboratory through the design and production of instructional materials.

The Resource Materials Center staff will consist of one full-time professionally qualified librarian who has additional skills in educational media, and one full-time qualified semiprofessional library assistant. In addition, two half-time library service interns from the School of Library Science, Syracuse University, will assist in the operation of the Resource Materials Center. A request for a special purpose grant under Title II of the Elementary and Secondary Education Act has been made to the Bureau of School Library Service, New York State Education Department, to support the purchase of resource materials and its cataloguing and classification.

The materials housed in the Resource Materials Center will be made available to all public and non-public educators in the two-county region, and to the staff of the Division of Teacher Education and Certification, New York State Education Department. Adequate safeguards will be provided to insure the availability of materials at all times. Circulation procedures will be established by the staff of the Resource Materials Center to insure the effective utilization of all materials.

The Resource Materials Center will be developed in two phases. During Phase I, resource material will be collected, cataloged and prepared for circulation. During Phase II, the materials in the Center will be made available to the Laboratory-operating personnel, to the trainees of the Laboratory and to the Division of Teacher Education and Certification, State Education Department.

The Resource Materials Center will house and circulate to its users the ERIC documents which will be made available to it from the Regional Center. This collection currently consists of approximately 18,000 documents on microfiche, and represents a contribution in kind to the Laboratory of approximately $2,500 from the Regional Center. A microfiche reader and a microfiche reader-printer will be made available to the Resource Materials Center from the Title III Regional Center also.

D. THE SIGNIFICANT IMPROVEMENTS

The programs which will be instituted within the Personnel Development Laboratory constitute a significant improvement over past practice in in-service education for teachers. Traditionally, in-service education programs in individual school districts have been established in isolation from other school districts in a region. The formation of an organization which has the ability to cut across school district boundaries as well as across county boundaries for the operation of programs in staff development is, of itself, a major innovation. Beyond this is the fact that within many school districts, the needs of teachers are being met only in gross terms by currently established in-service programs. Bringing together people who exhibit specific and comparable needs from a variety of school districts will permit the establishment of staff development and continuing education programs which are better suited to the prospective users.

A second major consideration involves the identification of individuals currently employed outside of the educational profession and their recruitment into levels of education where their particular behavioral skills are most useful. At present, a few, if any, attempts are being made to identify specific behavioral skills held by non-educators which may qualify them for educational positions. The Laboratory program, having identified behavioral skills within the educational profession and matching these with the behavioral skills of those outside of education, has broad implications for the recruitment of personnel into the field.

Yet another consideration for the Personnel Development Laboratory are the programs of the Education Evaluation Study Center and the Learning Environments Study Center which, while distinct from the Personnel Development Study Center, are influenced by it since knowledge of techniques and strategy for evaluation and for the study of organizations, climates and learning environments will affect, in many instances, the specific programs which will be designed to meet the needs of individual teachers, individual school districts and individual school buildings.

In essence, the concept that a regional approach to the development of programs for staff development which result in the identification and/or design of strategies for meeting the needs of districts is, in itself, an improvement over the past practices of in-service education. Equally important as an improvement is the development of a program which utilizes a wide variety of sources of funds to support the operation of specific programs. In the instance of the Personnel Development Laboratory, Title II and Title III, ESEA funds will be applied together with funds from Title I ESEA, Title III NDEA and Title V EPDA, as well as local

D. THE SIGNIFICANT IMPROVEMENTS (Continued)

districts and BOCES to provide the financial resources necessary for the operation of the total program. Still another area is the assignment of classroom teachers to serve as interns under other teachers whose behavioral skills are being used as a model for staff development. At present, most in-service programs do not allow the classroom teacher to work directly with other teachers in the improvement of their own existing skills. The Personnel Development Laboratory will allow this opportunity.

E. WORK EXPERIENCES

Work experiences will be provided by the Personnel Development Laboratory to support the pre-service and in-service education of educators at all levels. These work experiences will be based upon the development of skills as Personnel Development Laboratory programs proceed. For example, teams of educators from the participating school districts will receive assistance in developing skills in the analysis of teacher behaviors. Having developed these skills, the teams will utilize them in the analysis of behaviors of exemplary differentiated educators from within existing school staffs and will work in conjunction with the Laboratory staff to design theoretical models for differentiated teachers. Since skill in the analysis of behaviors is concomitant to the development of individualized programs for students, these skills have direct application within the classroom.

A second variety of experiences will be provided for school personnel once a model of differentiated teachers have been established. As indicated in the program description, selected individuals will be provided an opportunity to work directly with teachers who demonstrate specific and differentiated skills in a master-intern relationship. It is anticipated that the master educator will be drawn primarily from the two-county region but it becomes possible for the assignment of interns to master educators not only throughout New York State but throughout the entire United States if specific skills are to be developed.

E. WORK EXPERIENCES (Continued)

Personnel from participating school districts will also work directly with the Education Evaluation Study Center team and the Learning Environment StudyCenter team in the development of strategies for the evaluation of educational programs and for the analysis of learning environments. Opportunities will be provided for participating school staffs to become involved in work experiences based upon the concepts of PERT and PPBS and other program review techniques. Experiences will also be provided in the design and implementation of statistical analysis studies.

A long-range goal for work experiences for professional and semiprofessional educators will be based upon the use of mini-courses and micro-teaching situations within the Laboratory and simulations of small group and large group instructional systems. The sequence of simulations to be designed will culminate with the establishment of a total emersion simulation which has been described elsewhere as a mini-school. The total emersion simulation will involve cooperative experiences for educators, students, administrators, parents and community organizations as they affect a teaching-learning environment.

F. EVALUATION AND DISSEMINATION

I. Evaluation

An Advisory Committee consisting of management personnel of public schools, higher education, business and industry will be established by the Laboratory director to review the programs of the Personnel Development Laboratory. The Advisory Committee will meet at least monthly during the funding period for the following purposes:

a. To review the objectives established for the programs instituted by the Personnel Development Laboratory.

b. To review the procedures established for reaching these objectives.

c. To evaluate the effectiveness of the programs on an on-going basis.

Specific strategies for evaluation of programs will be established for the Advisory Committee by the Associate Director for Evaluation of ECCO and the staff of the Evaluation Study Center. Periodic reviews of programs will be referred to the Center for the Study of Evaluation, Ohio State University (Drs. Hammond, D. Stufflebeam and E. Guba) for analysis. Modifications of the evaluation program will be made based upon recommendations from the Center for the Study of Evaluation of Instructional Programs, University of California at Los Angeles, and the Center for the Study of Evaluation, Ohio State University.

EVALUATION AND DISSEMINATION (Continued)

II. Dissemination

Dissemination program for the Personnel Development Laboratory will be developed in relation to its established goals and to the special requirements of its programs. The dissemination program will include:

a. Publication of bibliographies and other teaching materials in the area of staff development.

b. Documentation of project activities through still photographs and slides and through video tapes.

c. Publication of reports and other materials for public and special interest consumption.

d. The establishment of informational conference for public schools and other interested and concerned agencies.

The dissemination activities of the Personnel Development Laboratory will be conducted by the Laboratory Coordinator. All activities will be carried out under the supervision of the Associate Director for Dissemination of ECCO.

G. PERSONNEL AND FACILITIES

I. Personnel

The total operation of the Personnel Development Laboratory will be under the direction of a Project Director (Mr. Nicholas Collis, Regional Director, Educational and Cultural Center). The Project Director will establish an Advisory Committee consisting of management personnel from public schools, from higher education and from business and industry. The function of the Advisory Committee will be to assist in the study of the organizational structures of existing school districts and to develop strategies for the more effective utilization of educational personnel. The Advisory Committee will also assist in the evaluation of Laboratory programs.

The Laboratory Director will be assisted by two Associate Directors, (Dr. John Readling, SUNY Oswego, and Dr. Luton Reed, Associate Director, Educational and Cultural Center). Dr. Readling will supervise the activities of the Program Coordination Section and the Personnel Development Study Center. Dr. Reed will supervise the operations of the Resource Materials Center, the Learning Environments Study Center and the Evaluation Study Center.

The services of the Director and Associate Directors will be at no cost to the Personnel Development Laboratory. Their services will constitue a contribution in kind of approximately $23,000.

PERSONNEL AND FACILITIES (Continued)

The staff of the Personnel Development Laboratory will be distributed among its component sections.

A. Program Coordination Section

The Program Coordination Section will consist of the Laboratory Coordinator, two Assistant Coordinators, a secretary and an audio-visual technician. The Laboratory Coordinator will have the responsibility for the management, and scheduling of the programs of the Personnel Development Laboratory, as well as the responsibility for all dissemination activities within the organization. The Laboratory Coordinator will demonstrate skills in program management and design, in systems analysis and in scheduling. He will be assisted by two Assistant Coordinators, each of whom will be assigned to one of the counties in the region. The Assistant Coordinators will work directly with the school districts in the county in the implementation of the programs of the Personnel Development Laboratory. They will assist in the design of programs and in the coordination and scheduling of activities. The audio-visual technician will supervise the operation of all educational media within the Personnel Development Laboratory as well as assist in the production of instructional materials for use in the various programs.

B. Personnel Development Study Center

The programs in the Personnel Development Study Center will be directed by a team leader who will demonstrate skills in the analysis of behaviors (behavioral psychology) and in the development and operation of continuing education programs. The team leader will be assisted by a Research Materials Analysis Specialist who will demonstrate skills necessary to assist in the development of programs through identification and analysis of materials necessary for the staff development program carried on by the Center.

Two Field Coordinators will be assigned to the Personnel Development Center for the purpose of direct work with the trainees of the Laboratory and will serve as counselors for all trainees. The Field Coordinators and the team leader will be assisted by two half-time interns, as needed, for the development and conduct of programs.

C. Learning Environments Study Center

The Learning Environments Study Center will be staffed by a team leader with qualifications in the evaluation of organizational structures and climates, and an assistant team leader with qualifications in the analysis and design of educational facilities. The staff will be assisted by a half-time intern in facility design. Assignment of personnel to the Learning Environments Study Center will be contingent upon the continued involvement of the Personnel Development Laboratory in Onondaga County New Town.

D. Evaluation Study Center

The Evaluation Study Center will be staffed by a team leader who will also serve as the Associate Director for Evaluation of ECCO and an intern from the Division of Educational Research, State Education Department. The Associate Director for Evaluation of ECCO, (Dr. Luton R. Reed), holds graduate degrees in Instructional Communications and in Public School Administration, and is currently certified as Superintendent of Schools and Director of Research in New York State.

E. Resource Materials Center

The staff of the Resource Materials Center will consist of one full-time professional-qualified librarian, one full-time non-professional library assistant or aide and two half-time interns in library service from The School of Library Science, Syracuse University.

Wherever possible, the personnel of the Laboratory will be selected to demonstrate a variety of skills which may be used interchangeably throughout the Laboratory. Some of the roles which the personnel of the Laboratory will perform are as advisors to students during the operation of programs, as program developers, as contact or liaison with school personnel, school districts and other organizations, and as interpreters of educational research, trends, and developments.

The total staff of the Laboratory will work closely together in the design and development of programs to insure their most efficient use in meeting the objectives of the Laboratory.

II. Facilities and Resources

The Personnel Development Laboratory will lease learning spaces and office spaces from the Educational and Cultural Center, 700 East Water Street, Syracuse, New York. ECCO will also lease to the Laboratory specialized furniture such as library shelving, study carrels, chairs, and office furniture in addition to audio-visual equipment such as overhead projectors, slide projectors, closed-circuit television cameras, video tape recorders, and portable video tape recorders.

ECCO will make available to the Personnel Development Laboratory full use of electrostatic copiers, offset press, mimeograph machine and collator for the production of program materials, and will provide storage space for materials and supplies. As mentioned previously, ECCO will also provide to the Laboratory the ERIC Document System, as well as microfilm/microfiche readers and reader/printer and the resources of the Regional Center's resource collection. Telephone service will be provided to the Personnel Development Center through the ECCO switchboard.

PERSONNEL AND FACILITIES (Continued)

The staff of the Personnel Development Center will be employed as an adjunct staff to the Regional Center for the purpose of providing personnel services such as retirement programs, health and accident insurance programs, and so forth. Control of federal funds represented by this project will be maintained under the direction of the Fiscal Control Officer of the Regional Center, and its accountants and auditors.

H. SELECTION OF PARTICIPANTS

Participants in the Personnel Development Laboratory will be selected on a volunteer basis from among the 28 public school districts and three non-profit private educational institutions in the two-county region. A conference of chief school administrators of all school districts will be convened for the purpose of program description and the solicitation of support. The chief school administrators will be requested to select from among their school staffs, teams of educators representing specific school buildings. The teams will be selected on whatever basis the chief school administrator will establish as being most effective in meeting the objectives of his own school district. A variety of possible means of selection will be suggested but none will be indicated as the primary means for selection. Each school district will be required to establish its own procedures for the selection of specific participants.

Once the teams have been identified, the specific assignments and programs for the members of the team will be developed on an individual basis by the staff of the Laboratory. Emphasis will be placed upon freedom of choice and freedom of expression within all Laboratory programs. The Laboratory staff will assist the school teams but will not dictate "approved solutions" to them.

H. SELECTION OF PARTICIPANTS (Continued)

During the initial stages of program development, it is anticipated that the number of participating school districts will be restricted to approximately five per county. It is further anticipated that the number of team members will be restricted to five per team. As programs develop, however, the number of participating school districts may be expanded to meet the needs and objectives expressed by the school districts and the number of members on the school teams may be modified to better support the operation of specific programs.

During the period in which the present proposal was being prepared, three local school districts, Westhill Central School (Anthony Teresa, Superintendent), West Genesee Central School (Edgar Beebe, Superintendent), and Jamesville-Dewitt Central School (Harold Rankin, Superintendent) contacted the Regional Director, Educational and Cultural Center, and requested assistance in the development of programs for the establishment of differentiated roles for the staffs of schools within the district. Negotiations with these districts for this purpose are currently taking place. Each district has indicated its willingness to support portions of the program of the Personnel Development Laboratory with funds from their normal operating budget. This will be a contribution in cash to supplement EPDA funds.

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BEHAVIORAL ANALYSIS INSTRUMENT FOR TEACHERS

PURPOSE

This instrument was developed to describe teacher behaviors during classroom teaching, planning, and evaluation and diagnosis. The outcomes can be considered reliable only when the instrument has been used by clinicians prepared in its utilization.

ASSUMPTIONS

The following assumptions are made for the use of the instrument:

1. Teacher behavior can be described objectively.
2. Describing teacher behavior is desirable.
3. Teachers are capable of changing their behavior when given objective descriptive information and when given organizational climate appropriate for change.

UTILIZATION

The instrument can be utilized by a team composed of a varying number of clinicians. The number of clinicians would relate to the particular purpose for which the instrument is being used. Generally, four clinicians would comprise a team. Eight or more clinicians could make up a team for the purpose of cross-reference. If less than four clinicians are used to make up a team, the classroom lesson should be video-taped for later reference. It is possible for one person to write a complete description from a video recording of the classroom.

The instrument can be used in different ways. Following is a list of possible uses. The list is not exhaustive, but is intended to suggest possibilities:

1. Develop descriptions of teachers for the purpose of certification.

UTILIZATION (Continued)

The behavior descriptions written by clinicians could be passed to a board of examiners who would determine whether or not the teacher's behavior is appropriate for licensing or certification for public school teacher. This establishes the possibility that teachers without formal educational preparation could be identified as having behaviors similar to teachers who have had formal preparation.

2. Assist school systems in the establishing of a differentiated staff.

   Descriptions of teachers, teacher assistants, and teacher aides, could identify their differing competencies in order to use them to their fullest potential.

3. Identification of various teaching models existing on a particular school staff.

   The description of outstanding teachers could be compared and contrasted to descriptions of teachers who are beginning in the profession and who appear to have capabilities for growth. The desirable behaviors of the model which are not yet possessed by the new teacher could be identified and developed by him.

4. Identification of strengths for a staff improvement program.

   Many teachers are considered outstanding, but it is difficult to identify their specific behaviors. This instrument should identify these characteristics, and present possibilities for in-service programs to develop behaviors which teachers have not yet considered.

5. Selection of a teacher from many applicants.

   A behavioral description gained through the instrument of each of the teachers could be passed to the screening committee for further evidence and data. When master teachers and other leadership teaching positions are to be filled, all teachers in a district could have descriptions made of them if they are to be recommended.

6. Supervision by teachers of student and intern teachers.

   Over a period of time, certain new behaviors would appear and some would disappear. The instrument could be administered periodically to monitor the new teacher's progress and report whether he had eliminated undesirable behaviors while acquiring new desirable ones.

UTILIZATION (Continued)

7. Identification of strengths and weaknesses in both curriculum and in behavior.

   In specific school districts, the instrument could focus on weak areas and could bring about curriculum development for the specific school district. If descriptions were made of all the teachers in one particular building, areas of inadequacy or weaknesses could be identified and a program of in-service work could be developed to meet their needs as identified by the evaluation of the description.

8. Consideration of teachers for tenure.

   Those responsible for making decisions and recommendations for granting teacher tenure could examine the description of a teacher's behavior prior to making their final decision.

ADMINISTRATION

There are three major categories of teacher behaviors contained in the instrument, two of which have sub-categories or sections:

1. TEACHING
    - A. General Techniques
    - B. Cognitive
    - C. Affective
2. PLANNING
    - A. Scope and Sequence of the Curriculum
    - B. Curricular Materials in Your Subject Area
    - C. Learning Process and Child Development
    - D. Innovative Programs and Practices
3. EVALUATION - DIAGNOSIS

Within the categories there are specific items of behaviors, and teachers may operate at various levels on each. For example, he may have knowledge of materials or of group dynamics. He may go on to establish the environment for effective use of the materials or for the utilization of group dynamics. Beyond that, he may analyze the materials or the group behavior. The highest level of operation is evaluation of the materials or of the dynamics of the group's interaction. These levels have no relation to a time sequence or order of operation but to intellectual processes. The student will react to the teacher on various levels, and the clinician-observer should record this level of response. Assigning levels describes a particular teacher's style or method.

When the observer sees a behavior demonstrated by teacher or student, he should note on his observation sheet the behavior (item) number, a brief description of what happened, the level of operation and any comments he may have concerning his own assessment of the situation. The levels of operation are:

(1) Knowledge of (the environment for), or
(2) ability to establish (the environment for), or
(3) ability to analyze (the existing environment for), or
(4) ability to evaluate (the existing environment for):

In assigning a level number to a particular item of performance or behavior, the clinician-observer should assume that all lower levels are incorporated or precede the higher level of operation. For example, if a teacher evaluates the dynamics of the interaction of the group, he has analyzed it.

In the Cognitive Section, levels should be identified both on verbal and non-verbal behavior of the teacher and student. Students may respond on many different levels of thought process to a single stimulus from a teacher.

Various levels of affective behavior of youngsters are identified in the items, and it is the responsibility of the clinician-observer to identify the level demonstrated during the classroom teaching session.

ADMINISTRATION (Continued)

In the Affective Section, there is an alternate recommendation. Additional clinicians may be added to the observation team, one to develop a Flander's Interaction Analysis Matrix, and a second to develop a Withall Social-Emotional Climate Paradigm. With the use of both of the above, three clinicians would be needed to gather information for the Affective Section.

The Evaluation Category is used by the clinician-observer while watching the teacher teach in the classroom and later in the interview session with him. This section has both measurement and evaluation items.

Steps in Administering the Instrument

Step 1 - Each member of the team of clinicians will identify a specific category or sub-category of the instrument as his responsibility. For example, one clinician may select Teaching--Affective; a second, Teaching--Cognitive; a third, Teaching--General Techniques; and a fourth, the Evaluation Section.

Step 2 - Prior to being observed in the classroom, the teacher will give the clinicians a statement of his objectives.

Step 3 - While observing the teacher in the classroom the clinicians use the category or section of the instrument which they have chosen to record the teacher's behaviors. The lesson should also be recorded on audio or video tape.

Step 4 - Immediately after the classroom lesson, the teacher in another location and without comments or directions from the clinicians, responds to the Planning and the Evaluation-Diagnosis sections. During this time, the clinicians compare data and begin the description writing process.

Step 5 - When the teacher has completed the above categories, he joins the clinician team and goes over his responses item by item, explaining only his "yes" answers, both for "this lesson" and "at other times." He is given the option of explaining the content of the item as he sees it appropriate to his activities. At the end of this interview-discussion period, the teacher leaves and the procedure is ended as far as he is concerned.

Step 6 - The team continues with the description-writing process which can be organized in whatever way the team feels is best for their needs. It will leave out value judgments as clinicians will never make such judgments. This is an important aspect of the process.

DEVELOPMENT

The instrument was designed at the request of the Bureau of Teacher Education and Certification, New York State Education Department, and financed by it. The Bureau's interest was prompted by its desire to consider alternative routes to teacher certification and for change in in-service programs for teachers.

Work on the instrument was begun by the Educational and Cultural Center of Onondaga and Oswego Counties with their consultants, in February, 1969. The team field-tested the instrument and wrote descriptions of teacher behaviors during May and June. During July, 1969, there will be additional work with teachers. As a result of this further field testing, a second stage of development will begin in August, 1969. At that time, a program to prepare clinicians to utilize the instrument will be considered.

1.A TEACHING -- general techniques

According to his stated objectives, the teacher will demonstrate:

(1) knowledge of the environment for, or
(2) ability to establish the environment for, or
(3) ability to analyze the existing environment for, or
(4) ability to evaluate the existing environment for:

1.A.1 Techniques to execute lessons in simulated and clinical situations with individuals and groups.

1.A.2 Techniques for providing attitudes, knowledge, and skills students need before direct subject matter instruction can begin.

1.A.3 Techniques for providing learning experiences that allow each student to meet with more success than failure.

1.A.4 Creating a classroom climate free from pressure and from inhibitions and fear.

1.A.5 Reward and punishment, success and failure, praise and reproof, competition and cooperation, and individual goal setting as factors in discipline and motivation.

1.A.6 Classroom grouping procedures and techniques.

1.A.7 Techniques for group dynamics and the interaction process.

1.A.8 Classroom management.

1.A.9 Student classroom behavior.

1.A.10 Work-study skills.

1.A.11 Counseling and guidance techniques for the subject area.

1.A.12 Conditions where the creative process flourishes.

1.A.13 Techniques to foster creativity in the subject area.

1.B TEACHING--student cognitive

SAMPLE OBSERVATION SHEET

According to his stated objectives, the teacher will demonstrate:

(1) Knowledge of the environment for, or
(2) ability to establish the environment for, or
(3) ability to analyze the existing environment for, or
(4) ability to evaluate the existing environment, for:

Item No.	Description of Teacher-Student Performance (what happened, when)	Level of Operation		Comments (why, how, etc.)
		Teacher	Student	
1.13.1	Identify, analyzed causes	4	3	Child analyzed as result, data gathered from reading, teacher evaluation response
1.B.4	Child gave reasons for earthquake			
1.B.2	Speculation considered	4	4	She asked him a question. Then asked after evaluation his response, A second question, "Is there something else?"
	Teacher asked child what he would be (child had read book about people; their characteristics)			

1.B. TEACHING--student cognitive

According to his stated objectives, the teacher will demonstrate:

(1) knowledge of the environment for, or
(2) ability to establish the environment for, or
(3) ability to analyze the existing environment for, or
(4) ability to evaluate the existing environment for:

1.B.1 Techniques of problem-solving as it related to the subject area:

1.B.1a Recognizing, identifying the problem
1.B.1b Collecting data
1.B.1c Identifying, analyzing causes
1.B.1d Stating a hypothesis (through inductive reasoning or preliminary generalizations)
1.B.1e Avoid jumping to conclusions (ability to remain tentative in the face of alternative or conflicting data until logical or empirical conclusions can be reached)
1.B.1f Analysis
  (Elements--recognizing unstated assumptions, distinguishing facts from hypotheses, avoid introducing internal, unrealistic values into decisions)
  (Relationships--check consistency of hypotheses with given information and assumptions, comprehend relationships)
  (Organizations--recognize forms, patterns that contribute to meaning)
1.B.1g Synthesis
  (Deduce properties, deductions tested by observation)
  (Recognize unwanted as well as desired consequences--putting together of parts, arranging, combining)
  (Test hypothesis, propose, plan, observe, experiment)
  (Develop abstract relations)
  (Seek alternative solutions)
  (Offers creative solutions)
1.B.1h Evaluation
  (Internal--probability of accuracy)
  (External--compare major theories, generalizations, facts)

1.B.2 Techniques for reflective thinking--speculation, deliberation, meditation, consideration, criticism.

1.B.3 Techniques for literal, interpretative, and critical comprehension.

1.B.4 Techniques for utilizing the student's prior knowledge of the subject.

1.C. TEACHING--student affective

According to his stated objectives, the teacher will demonstrate:

(1) knowledge of the environment for, or
(2) ability to establish the environment for, or
(3) ability to analyze the existing environment for, or
(4) ability to evalute the existing environment for:

1.C.1 Helping students to be aware of situations, phenomena, objects, form, color, design, as they relate to the content of the lesson.

1.C.2 Helping students to attend to, appreciate, be sensitive to the contents of the lesson.

1.C.3 Helping students to discriminate aspects of a stimulus, to control own attention, to be selective as it relates to the contents of the lesson.

1.C.4 Helping students to respond, to comply, to the contents of the lesson.

1.C.5 Helping students to consent, to choose to respond, to the contents of the lesson,

1.C.6 Helping students to gain satisfaction in response, to internalize new behavior or a concept, relating to the content of the lesson.

1.C.7 Helping students to display appropriate behavior in situations, which reflect their value of the concepts, their attitude relating to the content of the lesson.

1.C.8 Helping students to demonstrate a level of valuing, to cause them to pursue, to seek as it relates to the content of the lesson.

1.C.9 Helping students to develop a commitment and further that which he believes, as it relates to the content of the lesson.

1.C. TEACHING--student affective (cont'd)

(1) knowledge of the environment for, or
(2) ability to establish the environment for, or
(3) ability to analyze the existing environment for, or
(4) ability to evaluate the existing environment for:

Continue with these items, 3.C.10 - 3.C.13, if you are not using Flander's Interaction Analysis Instrument. If you are using this instrument, omit these items.

1.C.10 Techniques to help students to become open, responsive individuals and helping them to respond critically and constructively to one another.

1.C.11 Techniques which allow students to express feelings, attitudes, and interests.

1.C.12 Techniques to develop interpersonal communications--between students in classroom or in instructional setting.

1.C.13 Techniques which allow the student an understanding of self-needs, motives, experiences, motivations.

1.C.13 Techniques which allow the student to realize that his view of self determines his behavior--needs, motives, experiences, motivations.

1.C.13 Techniques for student achieving a sense of self.

2.00 PLANNING

Please check Yes to each item that you used in planning the lesson just observed. Since one lesson usually demonstrates only a part of a teacher's activities, check Column No. 2 if you use the item at other times. If the item is not ever part of your activities, check Column No. 3.

2.A Scope and Sequence of the Curriculum

When planning this lesson did you consider:

		1 Yes, for this lesson.	2 Other times.	3 No.
2.A.1	The relationship of your subject area to overall school program objectives?			
2.A.2	The historical background of your subject area and its relationship to present practices?			
2.A.3	Characteristics of contemporary programs in your subject area?			
2.A.4	Purposes for teaching your lesson in relationship to the subject area program?			
2.A.5	Essentials for your subject area program?			
2.A.6	Prepare your subject area instructional objectives in behavioral terms?			
2.A.7	Criteria for the selection of materials for various purposes and for specific individuals and groups in your curricular program considering content or other factors?			
2.A.8	Correlating the contents and skills of listening, speaking, reading, and writing with one another and with your curricular program?			

2.00 PLANNING (con't)

2.A Scope and Sequence of the Curriculum

When planning this lesson did you consider:

		1 Yes, for this lesson.	2 Other times.	3 No.
2.A.9	Writing evaluative criteria and instructional objectives in accurate and specific terms?			
2.A.10	The constructing and developing of instructional materials to convey ideas, illustrate concepts, and support instructional objectives?			
2.A.11	Organizing ideas into a logical structure and an understandable whole?			
2.A.12	Resources available for your program?			
2.A.13	The relationship between learning and culture?			
2.A.14	The effect of learning on future behavior?			
2.A.15	The effect of heredity and environment on student development?			
2.A.16	The significance, relationship of your subject area in the student's personal, social, academic, and economic development?			
2.A.17	The needs, interests, and concerns of students which affect the learning process?			
2.A.18	Factors in individual differences (sex, age, race, physical, intelligence, and experiential background)?			

2.00 PLANNING

Please check Yes to each item that you used in planning the lesson just observed. Since one lesson usually demonstrates only a part of a teacher's activities, check Column No. 2 if you use the item at other times. If the item is not ever part of your activities, check Column No. 3.

2.B	Curricular Materials in your Subject Area. When selecting materials for this lesson, did you consider:	1 Yes, for this lesson.	2 Other times.	3 No.
2.B.1	Resources available for your lesson?			
2.B.2	Research on habits and tastes of the learner?			
2.B.3	Current research related to your lesson?			
2.B.4	Aids in selecting materials appropriate for use with students, such as reviews in professional journals, reviews in popular magazines, reviews in newspapers, and various bibliographies?			
2.B.5	Comparing and choosing from a general body of knowledge, relevant facts and ideas?			
2.B.6	Causing students to compare and choose from a general body of knowledge, relevant facts and ideas?			
2.B.7	Quantitative and qualitative judgments about the extent to which material and methods satisfy instructional objectives?			
2.B.8	This lesson as a part of a unit of work incorporating instructional objectives, content, media, materials, methods, and evaluation?			

2.00 PLANNING (con't)

2.B Curricular Materials in your Subject Area.

When selecting materials for this lesson, did you consider:

		1 Yes, for this lesson.	2 Other times.	3 No.
2.B.9	Constructing and developing materials to support instructional objectives?			
2.B.10	Constructing curriculum adapted to the needs, interests, and abilities of the children?			
2.B.11	Modifying existing materials and media to special purposes?			
2.B.12	Adapting, modifying and combining various media to develop instructional sequences?			
2.B.13	Preparing teaching plans to provide varied experiences so that children will gain both enjoyment and knowledge?			
2.B.14	Meaningful situations which aid the child in thinking, feeling, speaking, and writing precisely and sensitively?			
2.B.15	Correlating and/or integrating content and skills of listening, speaking, reading, and writing with one another and with curriculum materials?			
2.B.16	Selecting equipment, teaching facilities and instructional materials?			

2.00 PLANNING (con't)

2.B Curricular Materials in your Subject Area.

When selecting materials for this lesson, did you consider:

		1 Yes, for this lesson.	2 Other times.	3 No.
2.B.17	Selecting the most appropriate medium or media to present a concept?			
2.B.18	Techniques to execute lessons in stimulated and clinical situations with individuals and groups?			
2.B.19	Selecting more than one medium as input to account for individual learning difference or styles?			
2.B.20	The relationship between the child development and the selection of materials for your students?			

2.00 PLANNING

Please check Yes to each item that you used in planning the lesson just observed. Since one lesson usually demonstrates only a part of a teacher's activities, check Column No. 2 if you use the item at other times. If the item is not ever part of your activities, check Column No. 3.

2.C	Learning Process and Child Development.	1 Yes, for this lesson.	2 Other times.	3 No.
	When planning this lesson, did you consider:			
2.C.1	Theories of learning as they are related to your objectives?			
2.C.2	Implications of child growth, development, and learning to the classroom?			
2.C.3	Psychomotor skills and their relationship to your objectives?			
2.C.4	Cognitive skills and their relationship to your objectives?			
2.C.5	The effect of learning and behavior and their relationship to your objectives?			
2.C.6	Family influence and behavior and their relationship to your objectives?			
2.C.7	Peer influence and their behavior and relationship to your objectives?			
2.C.8	Genetic, experiential, transactional, and factorial elements in intellectual development?			
2.C.9	Retention and/or transfer of training?			

2.00 PLANNING (con't)

2.C Learning Process and Child Development

When planning this lesson did you consider:

		1 Yes, for this lesson.	2 Other times.	3 No.
2.C.10	Social behaviors and academic achievement?			
2.C.11	Relationship between learning and cultural expectations?			
2.C.12	Physiological characteristics of the child and their relationship to your subject area?			
2.C.13	Emotional behaviors and social implications which evolve within the peer group?			
2.C.14	Significance of language in the child's personal, social, academic, and economic development?			
2.C.15	Relationships between language development and personal development?			
2.C.16	Relationships between your subject area and individual development?			
2.C.17	Any relationship existing between child development and your subject or skill?			
2.C.18	Needs, interests, and concerns of pupils which affect the learning process?			
2.C.19	Individual differences in pupils?			

2.00 PLANNING

Please check Yes to each item that you used in planning the lesson just observed. Since one lesson usually demonstrates only a part of a teacher's activities, check Column No. 2 if you use the item at other times. If the item is not ever part of your activities, check Column No. 3.

2.D Innovative Programs and Practices.

	When planning the innovative aspects of this lesson, did you consider:	1 Yes, for this lesson.	2 Other times.	3 No.
2.D.1	Historical background of your subject area and its relationship to present practices?			
2.D.2	Current research related to innovations in your subject area?			
2.D.3	Characteristics of contemporary innovative programs in your subject area?			
2.D.4	The effect on overall program objectives?			
2.D.5	The essentials for the school program in your subject area?			
2.D.6	Criteria for the selection of innovative materials?			
2.D.7	Quantitative and qualitative judgments about the extent to which innovative materials and methods satisfy instructional objectives?			
2.D.8	Writing evaluative criteria and instructional objectives in accurate and specific terms?			
2.D.9.	Innovative curriculum construction adapted to the needs, interests, and abilities of the students?			

3.00 EVALUATION

Please check Yes to each item that you used or considered, or will use or consider for the lesson just observed. Since one lesson usually demonstrates only a part of a teacher's activities, check Column No. 2 if you use or consider the item at other times. If the item is not part of your activities, check Column No. 3.

When making your evaluations, did you use or consider:		1 Yes, for this lesson.	2 Other times.	3 No.
3.1	Instructions for and administration of tests?			
3.2	Rating methods and construct scales?			
3.3	Different types of items and teacher-made tests?			
3.4	Teacher-made inventories--interests, values, habits, feelings?			
3.5	Desirable test characteristics?			
3.6	Sociograms, sociometric techniques?			

3.00 EVALUATION (cont'd)

When making your evaluations, did you use or consider:		1 Yes, for this lesson.	2 Other times.	3 No.
3.7	Techniques to determine the extent that democratic principles are present in the behavior of students ?			
3.8	Techniques to evaluate individual and group progress, using formal and informal techniques ?			
3.9	Techniques to evaluate the instructional sequence?			
3.10	Techniques to identify and evaluate instructional objectives ?			
3.11	Techniques to evaluate reports and other sources of information on individual and group inquiry activities ?			
3.12	Assessment of developmental change ?			
3.13	Methods for immediate reporting progress to the student ?			
3.14	Techniques to help children diagnose their own learning problems ?			

3.00 EVALUATION (cont'd)

When making your evaluations, did you use or consider:		1 Yes, for this lesson.	2 Other times.	3 No.
3.15	School testing programs ?			
3.16	Standardized intelligence tests ?			
3.17	Special aptitude tests ?			
3.18	Achievement batteries ?			
3.19	Norms in child development ?			
3.20	Methods for appraising growth ?			
3.21	Assessment of student progress toward maturing space and time concepts ?			
3.22	Interpretation of test scores ?			
3.23	Interpretation of the results of change?			
3.24	Methods to evaluate innovative projects in your subject area?			
3.25	Methods of reporting the student's progress to his parents?			
3.26	Methods of reporting the student's progress to the school?			

3.00 EVALUATION (cont'd)

When making your evaluations, did you use or consider:		1 Yes, for this lesson.	2 Other times.	3 No.
3.27	Efficient techniques for maintaining cumulative records of individual students ?			
3.28	Observational techniques for assessment of program effects, achievement, and student behaivor ?			
3.29	Diagnostic techniques for individual and group problems in individual and group situations ?			
3.30	Characteristics of optimum child health for detection of deviations in appearance and behavior ?			
3.31	Characteristics of optimum child behavior for detection of deviations in appearance and behavior ?			

Source: TEPS Write-in Papers on Flexible Staffing Patterns, April, 1969. Reprinted with permission from the National Commission on Teacher Education and Professional Standards, National Education Association, Washington, D. C.

AN ANCHOR TO WINDWARD:

A Framework of State Certification To Accommodate Current Developments in Differentiating Staff Roles

Alvin P. Lierheimer

In a sailboat race, an anchor to windward is used to halt the craft's drift away from the mark. The anchor is quickly recovered when way can be made, even if only in light air, until it needs to be set again.

The various processes of state certification of teachers have moved us far from the original goal of providing assurance to the public that at least a minimal level of teaching competence is possessed by the holder of a certificate. A more contemporary interpretation of the practice of certification could be an anchor to windward and could halt the aimless drift of the present that is taking us far from the original mark.

Inadequacies of Today's Scheme

The most basic shortcoming in a certification scheme built on courses or program completion is that it relates solely to input--what has gone into a teacher's preparation. It does not attest directly to output as one might assume--the teacher's capacity to induce learning on the part of students. Where certification is simply a statement that the holder has completed selected college courses, the public has no assurance about the quality of the courses offered, whether they are known to favorably influence teacher behavior in face-to-face instructional situations with children, or even the level of the teacher's achievement in the courses. Most state certification offices must accept a D grade for a course given by a last-minute, part-time faculty appointee at the "unlibraried" extension center of a marginal, albeit accredited, institution of higher education.

In states where certification is granted on the basis of the prospective teacher's completion of either a state-approved program of preparation or a program approved by a voluntary accrediting association, the public still has little assurance that the academic content and clinical experience are based on a long-term behavioral analysis of on-the-job performance by recent graduates. Neither can the public have confidence that the process of approval or accrediting, however good it seems on paper, was carried out by objective, experienced, and technically competent reviewers.

Further criticism must be aimed at the remoteness of the certification process from the candidate. The issuance of a teaching credential is done without reference to the particular human being but is primarily, if not exclusively, based on the college course record. Approved-program proponents will protest such criticism by alleging that the candidates they recommend to the state certification office must have personal qualifications deemed appropriate for teaching. But college records show that very few teaching candidates are screened out in the beginning or counseled out in midstream except for those with the most obvious personality disorders. And for the thousands of teachers who achieve a life license to teach children by presenting the cold copy of their college record, there is no place for a competent, candid, close observer to say, "This guy may have the right courses, but he's just not with it!"

These inadequacies are compelling enough in themselves to warrant a change in the certification process, but there are movements developing that suggest a redistribution of certification responsibilities among schools and colleges, state education departments, and professional organizations. Such redistribution compels the exploration of new techniques for administering the responsibilities by whomever shared.

Developments That Compel Reexamination

One of the movements that should be taken into account when we talk about who should serve in the education enterprise is that of differentiating, far more explicitly than is done now, the tasks which school personnel perform. Today the typical school staff is differentiated as to teachers, support personnel, and administrators. But sophisticated understandings in each of these categories have ballooned the jobs to almost unmanageable proportions. The teacher must keep up to date academically at all times; stay on top of the latest technological tools, books, aids; be a keen respondent to the emotional needs of the learner; master new strategies for inculcating independence of thought and critical thinking; take on new curriculum areas that range from sex to the performing arts. The administrator's role is likewise broadening and deepening as the public's expectation and abrasiveness increase. Can one man, as administrator, demonstrate success as a model instructor to his teachers, a perceptive social respondent to the community's youth, a politically astute agent of government to the taxpayer?

The distinctions between the three major existing categories of teachers, support personnel, and administrators are fading. Now, some activities in each category overlap. Some teachers are administratively effective managers of classroom resources, both human and material. Some auxiliary or support personnel demonstrate a type of motivational interaction with students that changes the earlier, passive concept of a teacher aide. Administrators who command admiration in a hostile community are "teachers" in influencing both student and adult attitudes toward education. The concept of a fully differentiated staff envisions an analytical breakdown of the tasks necessary to accomplish the studied and stated educational goals of the school.

Many schools are reexamining the teacher's role and finding that the variety of competencies and tasks expected in today's world are beyond the grasp of a single person, certainly beyond the grasp of the beginning teacher. Children are aided in their learning when they work with a teacher whose responsibilities are realistically limited and where the teacher's assignment reflects recognition of his unique strengths, interests, and specialized preparation.

A number of models are appearing which separate teaching roles. Less appears on the subject of differentiating the roles of support personnel and administrators. Titles and definitions vary, but experimentation with task and role analysis will continue because of the attractive logic that a differentiated staff offers. As a school staff recognizes, defines, and fulfills differentiated roles, there are benefits to students, to the community, and to the teachers themselves.

Students profit if their learning is managed effectively by persons specifically qualified for their particular needs, whether these be cognitive, affective, or sensory. Students are quick to spot a teacher in over his head and they seldom come to his rescue. But a teacher succeeding in a role that fits his talents and interests radiates success to his pupils.

The community profits from differentiation of teaching roles because new sources of talent can become available, e. g., persons with specialized talents but without full preparation for teaching. For the community there is the attraction, too, that financial support for staff salaries will be divided more discriminatingly. No, not merit pay; pay according to the complexity and demands of new tasks.

School personnel themselves can gain from differentiation as each becomes what he is most capable of becoming and most interested in becoming. Job satisfaction--an essential ingredient in retaining staff--is more likely to be realized when teachers and others perform at levels and in roles in keeping with their desires and talents. Movement within teaching ranks rather than from teaching to administration becomes possible as well as profitable.

A corollary development on the educational scene is the assessment or appraisal of teaching performance. Again, a variety of prototypes are in developmental stages. But if theoreticians and practitioners in the new centers of educational research continue their activities, there will be a greater number of useful observational records that permit the making of a systematic and critical determination about teaching performance. For example, Robert C. Burkhart (Teacher Learning Center, State University of New York College at Buffalo) is developing a "process inquiry grid" as a framework for identifying mental functions in terms of behavior. Donald M. Medley (Educational Testing Service, Princeton, New Jersey) is working on the "language of teacher behavior" designed to help teachers develop an understanding of the teaching process.

But more important than the appraisal devices themselves, the appearance of behavioral assessment techniques in a video-taped and computerized world makes imperative some agreement on teaching goals and objectives. What good is a measure of teaching performance without objectively stated criteria which reflect the desired goals of that performance? Less attention has been given to similar techniques for evaluating administrative behavior or the performance of support personnel such as guidance counselors, speech therapists, and social workers. But many of the same techniques for assessing teaching behavior and relating it to training will be useful for the related educational fields.

It will be highly desirable to have the teaching task analyzed appropriately and the components assigned to personnel uniquely equipped by training, experience, and desire to handle them. Similarly, it will be rewarding to have techniques for assessing the degree to which every task is being carried out and the extent to which the educational objectives are being met. But neither differentiating staff roles nor providing performance assessments in themselves expose the sweet kernel of education--the interpersonal touch without which all else is a lifeless shell. This elusive element breathes reality into every instructional task. The quality of the interpersonal relation makes the total assessment more than the sum of its parts. Academic competence and technological skill count for naught where teachers do not respond with knowledgeable sensitivity to the emotional and psychological needs of children. And how does one measure this ability? Does it not change with the school setting, the personal vagaries of the teacher's emotional and psychological makeup? Yet, we are beginning to learn from the slum school testing ground for teaching that these ill-defined, highly demanding teacher characteristics are a vital if not an overriding concomitant to academic content and pedagogy.

A more remote but no less real concern that stimulates a reexamination of certification theory and practice is the question of federal financing. How long will it continue without increasing pressure to accommodate local practices to federal bureaucratic decisions. The nature of educational progress today is strongly influenced by federal funds, that is, how much money is available and for what purposes. Proposals are quickly written for whatever purposes money is said to be available. Conversely, worth proposals that do not fit the purposes of available funds are quickly lost. The adage says that he who pays the piper calls the tune. The piper is being paid, but how is his tune chosen? It is a disagreeable prospect to anticipate federal action relative to teacher certification, especially since the states have not done an outstanding job of controlling admission to practice in years past. An even more remote and unwieldy bureaucracy can hardly be expected to exhibit flexibility or creative support.

What, then, shall be our anchor to windward? How can these current developments and persistent concerns be reflected in a more viable arrangement for certifying to the public that practitioners are worthy of their confidence and their support as well as their children? Need we wait until the concepts of behavior assessment and staff differentiation are thoroughly aired and tested before moving to accommodate them? Can't we put out an anchor now while practice becomes established and tested?

Redistribution of Responsibilities

At present, as mentioned before, certification requirements stipulate completion of courses for formal permission from the state to teach. There is no assurance that the courses are the most pertinent for a particular teacher in a given setting and precious little other than conventional wisdom that relates them to successful intellectual growth by students. Yet, lifelong permission to teach is given on the basis of courses determined by professional consensus but untested as to their effectiveness in achieving stated, educational goals. Courses, colleges, and candidates vary, but "the beat goes on" as teachers wearily complain their way through the lackluster offerings of unfeeling professors. Permission to teach might be gained through courses, but it might also be earned through simulation workshops run by professional organizations, seminars, and internships sponsored by groups of school districts, apprentice service in social agencies, pertinent business experience, or other ways. But permission to teach should not be granted--certainly not a life license--until teaching performance in a well-defined role has been observed and, to the extent possible, assessed in terms of the school's objectives.

What kind of a framework is needed to redistribute responsibilities among the agencies involved in preparation, i. e., the state department, the schools and colleges in concert, and the professional organizations?

Because the state is legally responsible for education, it has a basic role in the establishment of criteria for teaching service, but this basic role need not extend into such refinements as we find at present where the precise number and nature of courses are identified, albeit one and the same for the English teacher in Ocean Hill-Brownsville, Brooklyn, and in Painted Post, Stueben County, New York. Isn't it sufficiently basic for the state to establish a few categories of short-term permits for entry-level positions?

A permit could be issued for service as an auxiliary, as a teacher, or as an administrator, requiring perhaps high school graduation for the first and a baccalaureate degree with appropriate specialization for the second or third. Even a basic, entry-level, short-term state permit would need to provide for exceptions in which equivalent preparation was offered. If we agree there is no magic in particular courses, neither is there automatic assurance in the completion of a series of courses that culminate in a degree.

This entry-level permit might require, within two years, verification of performance ability in a specified role by persons who have observed the candidate systematically and according to predetermined standards. What does such a dramatic departure from present practice mean? The burden of certification decision making is shifted from a remote and impersonal state agency to a local, informed, and responsive authority. But this is not simply a shift to the already strained shoulders of the school's administrative officer. A responsible group of professional personnel from schools and colleges would need to participate in the establishment of criteria for the employment and assignment of entry-level applicants in a given school district. If the state requirements were reduced to a bare degree minimum, a school, through the concerted efforts of professional staff and in cooperation with higher education institutions, would screen applicants for their preparation, experience, and fitness for teaching tasks that had been carefully delineated. Few first-year employees would be given full responsibility for a regular class. Probably most candidates would present traditional collegiate backgrounds, but the flexibility would be available for judgments to be made locally, using whatever screening and assessment techniques had been adopted for well-defined tasks in the school.

The differentiation of roles in teaching or in administration is especially appropriate for the transitional induction period, for example, moving from college student of teaching to school teacher of students. Differentiation can create a flexible structure that will permit entrants to assume jobs scaled to their capacity. Novices might move into more complex and demanding roles as assessment determines their readiness for the responsibility. A considerable number of the drownings from the sink-or-swim school of teacher preparation might thus be avoided.

The school-college combine--a longtime romance shotgunned into marriage by the Education Professions Development Act--will be the critical determiner of staff roles and performance standards. If the professional organization at the local and other levels accurately represents the membership, not only will practicality prevail, but understanding and support will grow.

A casual arrangement between neighboring school and college will not suffice to develop the behaviorally described roles for staff assignments in the schools and the measures capable of revealing how well the described behaviors are exhibited. For some years yet the attempts in this area will be crude; discouragement and mistakes will lead some to urge a return to more simplistic teacher preparation, certification, and assignment. But neither the world nor its problems become simpler as knowledge increases. The professional associations, together with strong state education departments and government-supported educational laboratories, can provide help to the primary agent of change--the school-college combine. As the body of experience expands, it needs to be readily available to interested schools through consultants, visits, publications. Special financial help will be needed for the combine to work up specifications and test out early models of differentiated staff roles and ways of assessing their usefulness in the educational process.

The beginning years of a restructured certification framework must be used to gather experience. The change is from a known but inadequate scheme to a dimly seen but realistic promise. Experience must be gained from places willing to try out new patterns and confident enough so that temporary setbacks will spur improved trials rather than counsel withdrawal. As experience is gained, clinical researchers will analyze the elements of success and failure in order to establish new roles and develop improved assessment techniques.

The State's Role

Several modifications in role become appropriate for the state agency. For purposes of mobility, the state's record-keeping system must provide for the candidate and his future employers a uniform reporting schedule that can reflect local decisions about a candidate's performance. Representative involvement of local districts, higher education institutions, professional organizations, and data-processing design personnel could produce a record-keeping system that would provide uniform reporting of pertinent information even though job descriptions and performance analyses differed among school districts. When a candidate sought employment elsewhere, his permanent record, available from a central state office by phone-computer link, would tell his prospective employer where and how well he performed in a specific type of job.

As a monitor of the educational scene in its own jurisdiction, the state department of education could examine the range of trials at differentiation and assessment as well as the nature and quality of the trials themselves. Despite the encouragement of promised federal funds, for instance, there may not be serious attention by the school-college combine to the role of auxiliary personnel and the necessary training programs for such personnel. While collegiate training may or may not be appropriate for auxiliary personnel, the combine must be interested in the preparation and assignment of such personnel because they significantly and integrally affect the character of the professional staff member's role. Teacher trainers can no more forget about auxiliaries than they can ignore workbooks; indeed, they should influence both.

The state department that is carrying out the overall supervisory responsibility for teacher training will modify its traditional role of approving collegiate programs or evaluating the college transcripts of prospective teachers. The state's concern with individual teachers will be primarily one of record management. Its concern for programs of preparation will be directed in a helping as well as an assessing manner to the activities of the school-college combine in differentiating roles, preparing personnel for the roles, and assessing their success. The state will use financial inducements as well as persuasive leadership to help the combine carry out its responsibilities. In its assessment role, the state will ask questions of the preparers and the experimenters to elicit the sound rationale that should underly their activities. Not, "Are you offering the courses required for certification?" but, "How did you determine the course work and experience prescription?" Not, "What percentage of full-time staff have professiorial rank?" but, "How have you checked the validity of the assessment devices used with persons preparing to teach?"

It is assumed that there will be state and federal support of efforts by the school-college combine to develop more suitable roles for personnel to achieve maximum competence in promoting learning. This teacher-training function by public and private colleges and by the public schools cannot be supported without supplementary financial assistance. But it appears increasingly likely that local support for education will be displaced by virtually total state and federal subsidization.

Fears and Frailties

It is easy to dispel any dramatic departure from contemporary practice by inquiring for evidence in support of the new approach. The course-counting approach was instituted almost before the time of thinking man; no one raised the question of evidence then, nor do they raise it now except as a defense mechanism. "Don't give up what you've got until there's something better that has been proved!" It reminds one of the tycoon who wanted an imaginative breakthrough that had been proved successful. Just by observation, our practice of certification for a uniform teaching task is so absurd that a new approach built on logic and susceptible to development and refinement ought to be preferred.

Other fears about differentiated staffing and the assessment of performance are deeper and more puzzling as we consider local authority in certification for differentiated roles. Many school staffs will be unwilling to assume a judgmental role; many school administrators are not capable of exercising an unbiased judgment; local vocals will try to substitute argumentation and favoritism for independent conclusions based on established performance standards.

Teachers and administrators themselves may not warm to the idea of certifying to the competence of colleagues even in fulfilling tasks which they have helped to develop and which are to be assessed by homegrown measure of adequacy.

Professional resistance to relocating certification authority can be expected if only because it threatens the ego of persons who have come through the unrealistic and simpleminded course-counting approach. "I've done it; why shouldn't they?" Negativism can also be expected because judgments about others can disturb interpersonal relationships among teachers and between teachers and administrators. The use of sophisticated observational tools will require learning--or accepting--new insights about teaching styles and human character, especially one's own. An experienced teacher will learn, maybe unwillingly, much about himself in the process of learning how to evaluate the performance of others.

The prospect for change from the current pattern of preparation and certification is even more disheartening when one asks how a ghetto community with high hopes for education but with meager staff resources can manage local decisions about an individual's performance. Probably it can't now. Experience has to build models to examine and to adapt. But if the goal of improved teacher-learner relationships is kept in mind, the practices of the present cannot continue to satisfy.

In summary, the certification to the public that a teacher can lead students to learn and grow better than they would without such guidance should reflect our best current understanding of the educational process. Such an attestation must be made by an informed observer of the candidate's teaching in a situation where the task and the objectives have been defined and where the judgment is made by evaluating performance in terms of predetermined goals.

The breadth and complexity of the instructional task exceed the capacity of a single individual. As the jobs to be done are systematically differentiated and made more manageable, the possibility for certifying an individual's competence to perform the task becomes more manageable and more realistic.

To begin a reassignment of responsibility for certification now is an anchor to windward until further refinements make possible progress toward the mark--that anyone who can teach may teach.

OTHER MATERIALS OF INTEREST

Corrigan, Dean C., What Teacher Education Could or Should Be Doing in the Next Twenty Years or a New Focus on the Personal Dimension in the Education of Teacher-Scholars, Unpublished paper, 79 pp.

New York Legislature, 4536 Amendment to 3009, Education Law, in relation to the employment of teaching assistants, 1969, 2 pp.

New York State EPDA Guidelines

A. Implementation of Differentiated Staffing

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ET TU, EDUCATOR, DIFFERENTIATED STAFFING?

Rationale and Model for a Differentiated Teaching Staff

Fenwick English

THEME: The rationale for a differentiated teaching staff is presented along with a model which has been developed and will be implemented.

The notion that if "good things" happen to teachers, "good things" happen to children is challenged and examined; i. e., what is the relationship between any staffing pattern and learning?

The present staffing pattern of public education and the assumptions which support it are criticized as inadequate for better student learning to occur, and a case is made for differentiated staffing as a vehicle for better instruction.

Most educators suffer from a common ailment in considering any new "innovation" -- we tend to be solution-oriented or to prescribe before we diagnose. Differentiated staffing is an example of a magnificent solution to a complex problem. But before discussing the aspects of a differentiated teaching staff or describing a particular model, let us attempt to diagnose the problem which the idea attempts to remedy.

Many discussions about educational personnel immediately zero in on the teacher and begin describing problems of teacher shortage and flight, credentialing difficulties, salary scales, militancy, negotiations, or the utilization of paraprofessionals. These topics are solution-oriented because the teacher is a means, not an end. Schools were not built for teachers. The problem is to establish a relationship between an institution called "school" and something called "relevant learning." We usually bypass this relationship, assuming it is a given. We fail to ask, "Is there a relationship between learning and the formal institution of education?

This question may be likened to the story of Job querying the Lord, who responded, "I am who I am." Educators don't get very far because there is no substantial research base which can unequivocally respond "Yes" to our question. There exists some empirical evidence, but most of the time we rest our case upon tradition and philosophical precedent.

The embarrassing and disturbing fact remains that we don't know or are unable to specify very well how relevant school is in the process of education. Education is a non-performance institution. We have goals, we have grand purposes, we have good intentions, but these have never been defined in measurable terms. Hence, we are unable to specify the efficacy of traditional school practices -- whether they are better than, worse than, or as good as anything else. For example, on what basis do we decide that differentiated staffing is better than traditional staffing? How do we know that the present dominant method of deploying personnel is not the best way to organize a faculty or a school district? If there were some known relationship, some quantifiable measure, some operational index or standards, we could make an intelligent comparison, Not to know is indefensible. Professionally, it could be viewed as negligence and malpractice.

Defining Goals

A need of the highest order is to begin to define institutional goals in terms of expected student behaviors in order to assess the effectiveness of professional practice. Our unwillingness or inability to say specifically what we are responsible for means continuing to observe money being invested in education with few tangible results, continuing to see the erosion of lay confidence in public education and the gradual assumption of educational responsibilities by nonpublic educational institutions or agencies. It is no accident that the government is establishing alternative educational enterprises which operate outside the purview of the professional educator, the public school system, and schools of education.

Reality is pressing us all the while. Who is to perform the task of defining goals? How shall consensus be achieved? Does this mean national assessment or total conformity to goals by all learners? The real world is messy, partisan, political, and conspicuously in disunity over the question of goals. Despite uncertainty, we cannot avoid answering the question much longer. There is no safety in not knowing what you don't know. Good intentions and vague generalities will no longer suffice. If we do not soon stand up and say what we are responsible for, we may find we have no responsibility.

The educator's task is to press for performance specificity, for professional consensus on acceptable evaluative criteria, and for alternatives to ascertain efficiency and effectiveness of current professional practice in realizing the goals of education. We can begin by assessing local needs, relating them to societal needs, and formulating our own specifications for student performance. It is within this context that we can institute and establish instructional alternatives as one viable method of determining what is most relevant.

In the absence of clear marks of identifiable student behavior, we can use professional judgment. At least such judgment makes possible a comparison of two or more alternatives. If we don't have some alternatives on which to reflect and assess the efficacy of current practice in meeting instructional objectives, we must turn to tradition for validation. If this is the case, the evidence is overwhelming that current practice is an unacceptable alternative. At all levels we have failed to educate a substantial portion of Americans in the most basic rudiments of citizenship by not providing them the crudest means for economic survival and the ability to enjoy the American way of life in even the material sense, not to mention the realization of equality, freedom, and the assumption of democratic responsibilities. We have learned bitterly that the schools can be a ladder to the good life or a barrier which prevents some people from attaining it.

Schools become barriers by making operational assumptions about how children learn and how teachers teach that negate the idea of the school as the gateway to opportunity. The present school assumes that all children and teachers are equal by making no structural provisions for the differences among either. Learners, regardless of motivation, past environment, or family differences, are put through the same hoops in the same size instructional groups for the same periods of time. Who is different in the organization? All teachers, likewise, are assumed to possess the same talents and responsibilities and therefore are utilized in exactly the same manner, whether they have taught twenty years or two years, whether they possess a bachelor's or a master s degree, whether or not they have been back to school recently, whether or not their career ambitions or motivations are different. On one hand we profess that advanced training and experience on the job make a better teacher, and so we pay teachers more for this training and experience. On the other hand we fail to utilize this same training and expertise in the school by differentiating teaching responsibilities. Either we really don't believe that what we are paying more for makes a bit of difference in the organization, or we are inefficient in our utilization and deployment of personnel resources. This is tough to defend. It becomes almost an absurdity in the wake of a national teacher shortage.

The fact is that, in the present educational structure, the variables of teacher/student time and talent by which we can make the educational organization more responsive to the needs of both are not available to us to use any differently even if we wanted to. The need is to create an organization which has the capacity to be unequal in its treatment of students and in its harnessing of the resources to do that job in order to provide equality of educational opportunity.

The Alternative of Differentiated Staffing

Differentiated staffing is one promising solution and an alternative worth serious consideration. Professional educators, school board members, teachers associations, teacher-training institutions, and civic groups with an interest in education should weigh differentiated staffing as a viable method of determining whether maintaining the status quo represents the best solution to the problem. Differentiated staffing deals with the teacher as an individual and in an organizational context. It assums that while the student is the one who is to learn, the teacher is a most important person, the one who facilitates and monitors the process. It further assumes that there are positive relationships among teacher training, morale, involvement in technical decisions, joint evaluation of colleagues, and the quantity and quality of what students learn in school.

If these relationships and assumptions are valid, how teachers are deployed and the manner in which their talents and specialties are utilized in the instructional program become important considerations for practicing professionals and the public. Other vital concerns are how those talents are to be kept relevant, how the institution reinforces those who excel at what they do, and how the system of rewards functions to increase teacher productivity.

While the analogy which follows may not be exactly parallel, we may gain some insight from examining it. Few business or industrial leaders would advocate investing more money in their businesses without being sure that what was ultimately produced as a result of the investment would be better or that production or productivity would be more efficient or increased. Educators have never had to struggle with those questions because we have had a virtual monopoly of public funds. We have never had to compete with anybody or any other organization for the resources to perform our jobs. Therefore, we have not had to define very well what we do, or answer very many questions as to how efficiently or effectively we do it. As individuals within an organization essentially non-competitive, we have run for cover whenever qualitative questions are asked of us. As the demands of the public increase but their support, in many instances, decreases, we find ourselves struggling to discover a rationale that is convincing. As long as we avoid defining the product of our efforts, qualititative questions will remain unanswerable and embarrassing.

A cursory examination of the present educational organization would reveal that it is indifferent to instructional equality. Salary and promotions have nothing to do with maintaining excellent teachers as teachers. The profession is plagued by an exodus of talent to school administration or to the business world. High teacher turnover and teacher shortages exist despite the fact that preparatory institutions produce more teachers than any other professional personnel and in the face of the record that some state departments of education have more teaching credentials on file than there are jobs to fill. The incentive system of public education does not reinforce teaching as a career in education; it reinforces administration. In addition, teachers lack professional autonomy and independence, are unable to practice professional self-regulation or licensing, and are muted by a system of decision making which needs technical expertise to solve complex problems but which essentially is operated by administrators in the absence of teacher expertise.

The educational institution's system of reward makes time the central criterion for advancement, and the salary schedule assumes that all teachers grow in exact annual equivalents or that expertise is an automatic concomitant of a given lump of Carnegie units. There are no promotions in teaching. All promotions lead away from the classroom. The single-salary schedule tends to reward expertise but in actuality is deaf to it. It is the most innocuous method of remuneration available and fails to confront the whole issue of providing adequate incentives for teachers to remain in the classroom. Teachers have advocated across-the-board increases, and boards of education have countered with merit pay plans. Both avoid the question of increased responsibilities as a method of advancement and continue to operate from the single-salary schedule. As long as time reigns supreme as the basis of rewarding teaching competence in the educational organization, we will **not** have the flexibility to offer substantive institutional incentives and promotions for teachers as teachers, nor be able to offer the public much more than they are now receiving for their tax dollars.

Teachers are not only paid in the same manner, in most school systems they are treated as interchangeable parts and all, regardless of talent or experience are given the same instructional responsibilities. It is not unusual to find a twelve-year teaching veteran with the same instructional duties for thirty third-graders as he had the day he first walked into the classroom. Teachers are treated in large city school systems in accordance with what industrial researchers call the "machine model" of human behavior. This paradigm is defined as one in which employees are "primarily passive instruments", capable of performing work and accepting directions, but not initiating action or exerting influence in any significant way. [1]

The desire of large systems for control and hence predictable employee behavior has led to a highly structured work environment with elaborate sets of rules and regulations. An unintended result of this practice has been the stultifying effects upon teacher initiative and creativity, the paralysis of the educational program in dealing with changing student and societal needs, and the administration of the program by formula and categorization rather than by discretion, judgment, and vision. The clamor by parents for better education, the taxpayers' revolt, recent student discontent, sit-ins and riots, and teacher militancy further ossify most educational systems as administrators defend their actions by following the procedure book even closer for fear of making the wrong decision.

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[1] March, James G. and others. Organizations. A publication of the Graduate School of Industrial Administration, Carnegie Institute of Technology. New York: John Wiley and Sons, 1958. 262 pages.

What, then, is the promise of differentiated staffing as an alternative? Inherent in a plan of differentiated staffing on the basis of responsibility is the decentralization of decision making, the creation of new teacher roles which produces organizational inequality and increased flexibility, and the establishment of new career patterns for teachers. Concomitantly, in order to assess the effectiveness of a new staffing pattern, student performance objectives are formulated which permit its measurement with the traditional method of staff deployment. Only when the organization of education permits its personnel and students to structurally have strengths and weaknesses, vast differences in training, motivation and achievement can we successfully meet individual student and teacher needs to reshape the instructional program. It may be argued that individualization of instruction for students cannot be attained very well as long as we deal only with the recipients of that instruction. Individualization of teacher talents is the other concomitant responsibility in this regard.

Once we admit to the fallacy of teacher "equality" and create an organization which is unequal and which can capitalize upon the individual and collective talents within it, we create technical gaps (based upon abilities to perform the additional responsibilities) among teachers themselves (they already existed, but not in a formal role sense) and between teachers and the administrative structure. Bennis[2] has noted that bureaucracy thrives in an undifferentiated environment with a pyramidal structure of authority and power concentrated in the hands of the few. Differentiated staffing shifts decision making from an individual context to a group context. The most logical rule to follow in the decision-making process is that decisions should be made by the most competent people within the organization, e. g., managerial decisions should be made by managers. The current difficulty in school administration is that teachers are not engaged in the decision-making process at all at the top levels. Generalist administrators usually not only make the technical decisions but formulate rules which dictate how specialist teachers should perform. The more specialized teachers become, the more they resent being evaluated solely by generalists.

Education also loses many of its most talented technical practitioners to management because of the lack of a career pattern. Differentiated staffing creates a new career pattern which offers a method of reinforcing teacher productivity and establishes vertical mobility in the teaching faculty where none exists now. There always have been qualitative breaks in the line/staff model of decision making in education as in other fields. What differentiated staffing makes possible is a formalized way of involving teachers in decision making with administrators where their knowledge and skills are necessary to produce competent decisions and engage in relevant organizational problem solving.

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[2] Bennis, Warren G. Changing Organizations: Essays on the Development and Evolution of Human Organization. New York: McGraw-Hill Book Co., 1966. 232 pp.

Any model of differentiated staffing should, therefore, extend the influence of the teacher in the decision-making process. Differentiated staffing is far more than a salary plan; it is a method of re-organizing the resources of the organization to do a better job in diagnosing and prescribing and allocating those resources to be more effective than is now possible. It should seek to involve teachers in the evaluation of colleagues, since a specialist should evaluate a specialist in the performance of his responsibilities. This certainly is one of the touchstones of a profession--its willingness and its ability to perform the regulating activities of its own membership. The exercise of this function is central to the desire by teachers for greater professional independence and autonomy and greater voice in admission to the profession itself. The power to regulate is the power to control. As long as teachers leave the regulation of their ranks to other persons or groups, they cannot govern themselves. If teachers fail to define the essence of good practice through regulation, others less qualified and with motivation perhaps different from the advancement of good practice are free to exercise theirs. The privileges of professionalism are gained by assuming the responsibilities which accompany them. This does not mean that the generalist or manager is excluded from the evaluative process, only that the process should be augmented by the best available professional expertise and judgment relative to the job being performed.

The proposed model of differentiated staffing has been described in two previous publications.[3,4] Three basic areas of additional responsibilities are part of the staff differentiation design. Basically, they pick up strands which are evident in most systems today. For this reason, most educators will find the model more easily adaptable than those which use a hierarchy of learning as the basis of staff differentiation.[5] The three areas are (a) instructional management, which features an advanced teacher as a learning engineer; (b) curriculum construction, which adds to a teacher's responsibilities emerging curricular theory and design by discipline structure;[6] and (c) advanced skills of the practical application of research for the improvement of instruction. Positions beyond the staff teacher level relate to specific disciplines. At the primary school level, these positions may be augmented by the introduction of subject skill specialists.

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[3] Rand, M. John, and English, Fenwick, "Towards a Differentiated Teaching Staff." Phi Delta Kappan, 49: 264-68; January, 1968.

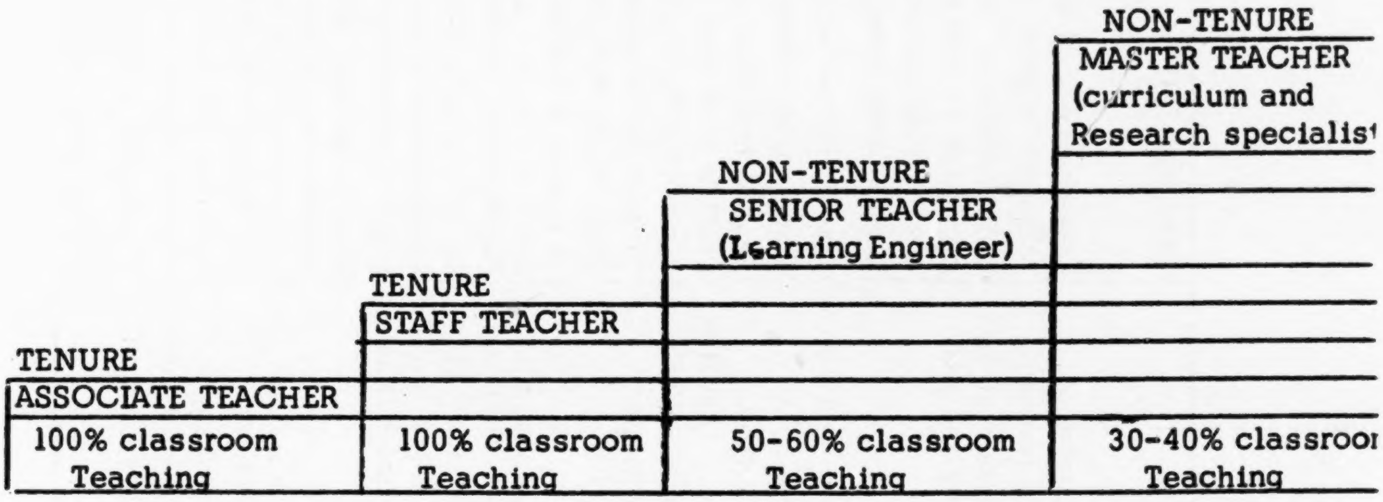
[4] Allen, Dwight W., "A Differentiated Staff: Putting Teaching Talent to Work." Occasional Paper No. 1, Washington, D.C., National Commission on Teacher Education and Professional Standards, National Education Association, December, 1968.

[5] McKenna, Bernard H. School Staffing Patterns and Pupil Interpersonal Behavior: Implications for Teacher Education, Burlingame; California Teachers Association, 1967.

[6] Scriven, Michael. "The Structure of the Social Studies." The Structure of Knowledge and the Curriculum. (G. W. Ford and L. Pugno, editors.) Chicago: Rand McNally & Co., 1964, pp. 87-105.

Figure I

THE TEMPLE CITY MODEL OF A DIFFERENTIATED TEACHING STAFF


NON-TENURE
MASTER TEACHER
(curriculum and
Research specialis
NON-TENURE
SENIOR TEACHER
(Learning Engineer)
TENURE
STAFF TEACHER
TENURE
ASSOCIATE TEACHER
100% classroom Teaching
100% classroom Teaching
50-60% classroom Teaching
30-40% classroo Teaching

Entry points to the profession are expanded from a single point (staff teacher) to multiple points (any of the positions described in the hierarchy). Contractual periods would vary with the degree and complexity of instructional responsibilities. For example, the senior teacher is employed for eleven months and the master teacher is employed for twelve months. This arrangement, coupled with daily schedule flexibility can take advantage of the fact that many housewives in the community who have been teachers and still possess credentials can work part time in some capacity in the school. Many qualified teachers can be drawn back into the profession. These same people are rendered impotent to the educational organization now because of its lack of flexibility in the utilization of teacher time and lack of role flexibility. In addition, the creation of the teacher hierarchy permits excellent teaching to function at all levels. The housewife-teacher is not forced to work a longer year, but she does not hinder the career teacher from professional advancement in the organization. One is not penalized at the expense of the other. Figure II presents an overview of the teacher responsibilities in the same differentiated staffing model in one discipline, the social sciences.

Figure II
ROLE RESPONSIBILITY IN A DIFFERENTIATED STAFF

TEACHING ROLE	RESPONSIBILITY	FUNCTIONS	EXAMPLE (S)
Master Teacher	District-wide; subject area responsibilities, K-12	Classroom teaching; application of research to curriculum design by subject descipline and structure.	Development of experimental-research design of social studies units utilizing "post-holing" approach to solving contemporary social science problems at junior high school level.
Senior Teacher	School responsibilities, K-6; 7-9; 10-12	Classroom teaching; application of new methodologies, learning and teaching strategies; media applications.	Concomitant development of experimental teaching strategies and tactics with new social studies "post-holing" units in pilot situations; evaluation; in-service with staff; revision; development of resource banks for new units.
Staff Teacher	Grade responsibilities, K-6; 6-9; 10-12	Classroom teaching; individualized instruction; large/small-group presentations, tutorial sessions	Adaptation, adoption, evaluation of new social science units with suggestions made after extensive pupil monitoring in various instructional settings and modes for alternatives .strategies.
Associate Teacher	Grade responsibilities, K-6; 7-9; 10-12	Beginning teacher Classroom teaching; team-teaching partner; large-group instruction assistance.	Implementation of new social science units with variations appropriate to teaching team strategies and assignment; evaluation of units regarding relevancy and content validity.

For many reasons, scheduling flexibility is an integral component of a differentiated teaching staff. Without flexibility in scheduling, the superimposing of new roles will fall victim to rigidity and further stratification. Flexible scheduling is the key to successful utilization of teacher talent and teacher time. The combination of these two variables are the vehicles for a new school day. For this reason, the concept of the self-contained classroom, regnant in most elementary schools today, is a barrier of the first class to differentiation of teacher roles. It has come to be an accepted fact that no one teacher can be all things to all children. The continuation of the self-contained classroom notion hinders the effective deployment of personnel and hence hinders effective instruction. Teacher claims that such flexibility is injurious to children cannot be substantiated from achievement or research data. The statement, "I teach children, not subject matter," is a gross misapplication of an earlier educational philosophy. Children do not learn in a vacuum. Problem-solving activities and conceptual learning are only meaningful when they can be related to specific instances. In the words of William James, "No one sees further into a gerneralization than his knowledge of the facts applied."

One question persistently raised in a discussion of differentiated staffing concerns evaluation: Who will evaluate the teachers who are functioning beyond the staff teacher level? This is an unmanageable responsibility for the principal, since the advanced training and technical expertise of these teachers are far beyond this.[7] The rationale for the creation of the position was that they would improve the quality of the instructional program. They render services to the staff and associate teachers. Who is better qualified to evaluate the services than those who receive them? Thus, staff and associate teachers evaluate the services received by senior and master teachers (see Figure III). Senior and master teacher, in turn, evaluate their colleagues. This is a model of dual evaluation and places one of the responsibilities of professionalism on the hands of the teachers. If evaluation is seen not from an inspection-oriented or punitive vantage point as it has been traditionally conceived and practiced by superivsors, practicing professionals should receive great benefits from the suggestions, criticisms, and judgments of one another. This two-way flow of ideas and service monitoring is one of the crucial differences between evaluation as it is currently conceptualized and the process of appraisal exchange in a differentiated teaching staff. The assumption made is that professional teachers are competent to render valid observations concerning the improvement of their practice. An extension of this logic would be student evaluation of teachers in some dimension. In the wave of recent student agitation and unrest and demands for educational reform, it does not seem a matter of "if"; rather, it is a matter of "how" and "when."

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[7] English, Fenwick. "Is the School Principal Obsolete?" A paper written for SPEIR, Title III ESEA PACE Center, Riverside-Imperial Counties, Riverside, California, January, 1968.

Advancement beyond the staff teacher level is not automatic but is directly contingent upon successful evaluation by one's peers and colleagues. It is important to note that all personnel in the model function as classroom teachers. This is a necessity if teachers are to be promoted as teachers. Current definitions of a teacher as anyone who teaches more than 50 percent of the school day will be inadequate to describe a teacher's job in a differentiated teaching staff. New conceptualizations of what a teacher is and does are no more apparent than here. Since the model of staffing rests upon flexible scheduling, teachers will not be with children all day long even though perhaps teaching 100 percent. Definitions of what teaching is, or what a teacher is should instead describe what happens with students and in what situations requiring what kind of professional judgments. Time-based criteria dominate many of our definitions and thinking and are locked into many legal codes. They will have to be replaced as new conceptualizations of education are implemented. The creation of the advanced role and the implementation of the dual evaluation means that teachers will be in a position to govern fully the spectrum of technical work in which they are engaged, from instruction to curriculum writing to the application of research to improve practice.

Decision making in a differentiated teaching staff is decentralized. Figure III attempts to illustrate the new organizational relationships between the technical, managerial, and institutional subsystems of the educational institution. These are based upon Parsons'[8] theory of the major subdivisions in an organization. Within the managerial subsystem, consisting now primarily of only staff teachers, is extended in both directions to include teachers as formal partners with administrators in the decision-making process. Decision-making contexts occur at the school level in the academic senate and at the district level in the academic coordinating council. It is in these new environments that the technical-managerial subsystems are integrated in relevant organizational problem-solving activities. Here, curriculum and instructional program priorities are resolved and related to program dollars. The principal must involve his senior teachers in the construction of school policies within the framework of the institutional subsystem represented by the board of education and the legal code. The principal will become much more of a group specialist and understand how to coordinate the activities of his teaching staff at all levels. In case of disagreement between the principal and

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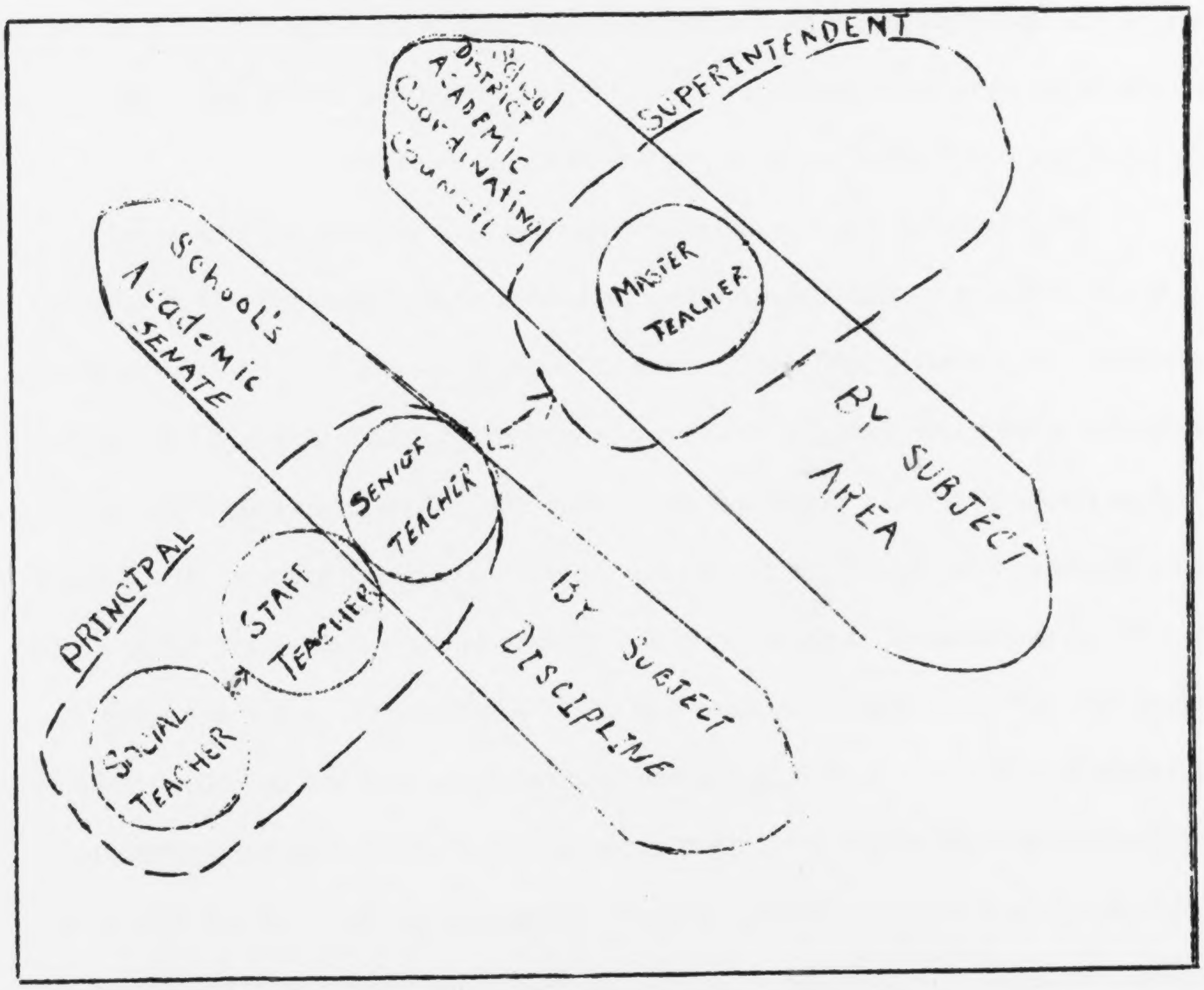
[8] Parsons, Talcott. Essays in Sociological Theory. Revised edition. Glencoe, Ill.: The Free Press, 1964. 459 pp.

Figure III

A MODEL OF EVALUATION AND DECISION MAKING
IN A DIFFERENTIATED TEACHING STAFF

BOARD POLICY (INSTITUTIONAL SUBSYSTEM)


SUPERINTENDENT
School District Academic Coordinating Council
MASTER TEACHER
BY SUBJECT AREA
School's Academic SENATE
SENIOR TEACHER
BY SUBJECT DISCIPLINE
PRINCIPAL
STAFF TEACHER
SOCIAL TEACHER

□ INSTITUTIONAL SUBSYSTEM

<—> TECHNICAL SUBSYSTEM (Evaluative and decision-making responsibilities)

(- - -) MANAGERIAL SUBSYSTEM (Evaluative and decision-making responsibilities)

○ CORPORATE DECISION-MAKING SUBSYSTEMS (Technical/mangerial groups) academic senate because the latter has real power, an appellate body--the academic coordinating council composed of other principals and master teachers--resolves the impasse. The linestaff responsibilities of the principal are not dissolved but augmented and redesigned with parallel technical authority of teachers functioning in the advanced roles.

The differentiated teaching staff places the professionalization of teachers squarely on all members of the education profession. It asks school administrators to form new relationships with teachers within the school and school district as colleagues in the decision-making process. It asks of teachers an acceptance of the challenge for additional training to serve in the new capacities with increased sophistication and competence. The aura of what has been called "credentialism,"[9] i.e., a defensive posture concerning nonprofessional functions, must be replaced by new vistas of experimentation, redefinition, and change. Those professional tasks which no longer require judgment and which have become routined must be delegated to auxiliary personnel or machines. Growing professionals are never in the position of being replaced and thus will not hide behind "credentialism" as an excuse not to differentiate role assignments. Discarding "credentialism" allows the professional to use his judgment in other areas where his competence is necessary.

Differentiated staffing offers to American education new organizational flexibility and new conceptual structure. It offers to the teacher advanced levels for promotion and participation in organizational decision making. It places the teacher in the position of being maximally effective to learners through scheduling flexibility and the deployment of talent in unequal amounts at varying times and raises the quality of the instructional program in a substantive way by taking optimal advantage of teacher technical expertise in shaping relevant and self-renewing curriculum. This is the alternative which is available. Not to accept it is not to know what education might become. Not to implement some model of it leaves us without a defense of present practice. If we cannot defend what we are doing, perhaps we ought not to be doing it.

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[9] Allen, Dwight W. "Credentialism." Working paper. Amherst: University of Massachusetts. May, 1968.

Perhaps the greatest benefit of differentiated staffing is that it forces educators to ask qualitative questions that will no doubt prove highly uncomfortable such as: what is the relationship between differentiated staffing and increased student learning? Will the implementation of differentiated staffing improve human relations in the school? Will increased technical expertise of teachers really produce relevant learning?

We will never be able to accurately assess the quality of learning until the objectives of education are stated in observable, performance terms. Increasing evidence and study indicate that while we may not be able to specify all the affective counterparts to cognitive knowledge, we certainly can be more precise about the educational product than we have been. As we develop performance criteria, we may also test current practice against other alternatives that are available.

The time of maximum insecurity for educators will be when they begin asking qualitative questions and find that they have to admit that many are obsolete, with validity, and contrary to a good deal of logic and research already available. Asking qualitative questions means shedding light on traditional assumptions and demanding empirical evidence for their continued usage. This is the skeleton in the professional closet which gets rattled in considering a reorganization of public education via a differentiated teaching staff. When the product is defined, the methods-means of producing it can be assessed or at least made quantatively approachable.

The relationship between learning and any staffing pattern rests upon the assumption that the manner in which teachers are deployed with students and the degree to which that relationship is meaningful and relevant are positively correlated. Students are facilitated or hindered by significant adults, some of whom are called teachers and are subjected to certain organizational and societal rules concerning the purpose of this relationship in a special place called school.

We further assume that if the professional teacher has greater ability to manipulate his time and talent, he will know how to better diagnose and prescribe unique experience which will facilitate student learning beyond the methods currently available. If this is not true, we shall have laid our professional souls bare, for many of our excuses will have been taken away. The validity of our practice will be put to the test. This means challenging the nature of teacher/administrator training, the nature of professional diagnosis, the nature of the deployment of professional personnel in keeping with diagnosed student needs, and the efficient utilization of our resources to accomplish specified learning tasks.

If differentiated staffing is accompanied by significant changes in the decision making structure of education and the development of collegial relationships between teachers, administrators, and students, the human relations of the public school stand to gain immeasurably. If all concerned with the school and its program are involved meaningfully in a real dialogue about its structure and content and how activities can be tailored to the instructional program, it may be expected that the potentiality of conflict will be increased but that the solutions available to solve real problems will also be increased. Real participation of teachers in organizational problem solving as peers in the democratic process will mean administrators will be more vulnerable than before and teachers will be vulnerable for the first time in their new roles. The relevancy of the institution to the society itself should be increased. Communication and commitment to the goals of the school should also rise. Extraorganizational conflict may decrease, intra-organizational conflict will be expanded. The "smooth ship" notion of good leadership just may be all wet when an organization is characterized by broad participation in the decision making process.

The danger in considering the implementation of a differentiated teaching staff is that it may be seen as an end rather than as a means. Viewed as an end, it could be completely irrelevant to improvement in student learning, even though it may produce desired changes in the teaching profession. Viewed as an end, we may simply refine the status quo. Correctly seen as a means toward greater utilization of educational resources, it may provide a breath of fresh air for American education. To have tried it and failed may in itself be a new dawn for the teaching profession. Not to have tried it all may be to have failed at professionalism itself.

B. Temple City

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TOWARDS A DIFFERENTIATED TEACHING STAFF

By M. John Rand and Fenwick English

(The single salary schedule and the assumptions of homogeneous teacher roles which support it constitute a school tradition carefully built over the past 30 or 40 years. Mr. Rand and Mr. English think it is time to change this tradition.)

(MR. RAND (1622, University of Southern California Chapter) is superintendent of the Unified School District, Temple City, California. MR. ENGLISH (3322, University of Southern California Chapter) is director of the Differentiated Staffing Project for the same district).

The acute shortage of teachers and the growing movement toward teacher professionalization are placing unbearable strains upon the present organizational structure in education. The shortage is worst in the nation's largest metropolitan areas, where organizational structures are most rigid and inner-city children are in greatest need of good education. In suburban districts there is growing constituent dissatisfaction. Taxpayers are balking at increasing education costs without some proof that the pudding will be better.

Rising militancy and mass "resignations" last fall are signs that teachers are dissatisfied with their roles as mere implementers of administrative decision. Their demands are certainly more inclusive than simply a raise in pay. Teachers are telling us something we should have known or predicted long ago. When a group of people increase their technical competence close to that of the two members of the hierarchy, lines of authority become blurred. The subordinate position begins to rest more upon arbitrary and traditional distinctions than upon competence to perform the job.

Teachers are demanding inclusion in the decision-making process in education. As Corwin says,[1] professionalism is associated positively with militancy.

Rather than arouse hostility in administrators and lay boards, it should be welcomed as one sign that the teaching profession is coming of age.

Increasing teacher specialization and competence mean that roles within the present educational structure are in the process of change. Teachers are recognizing that to break out of the ceilings imposed by the single salary schedule they must reexamine the assumptions which support it. The increasing need for high specialization and advanced training means that some teachers should be paid between $20,000 and $25,000 per year, as are specialists in other fields. So long as we have the single salary schedule, however, no one will get this amount. The money simply cannot be raised without a complete (and in the short run completely impossible) overhaul of tax structures, school financing, and public value systems.

Hence the dissolution of the single salary schedule is a must if the teaching profession is to advance. Teachers will generally admit that not all of them possess the same abilities or strengths. They reject the onus of "merit pay," however, as "unprofessional" or otherwise undesirable. Merit pay plans offer the advantage of dissolving the single salary schedule, but ordinarily make no distinction in job responsibilities of teachers. Added pay is for "merit," not for added responsibility. As long as teaching is considered an art, one man's "superior" teacher is another's "average" teacher. Judgment of teaching "excellence" must be based on careful research just beginning to emerge at some universities. We have a long way to go before we can specify on the basis of empirical evidence what teaching excellence consists of. Hence we do not have the foundation for merit pay.

The Temple City plan approaches the problem from a different perspective. Teachers are not treated the same. They may receive additional remuneration for increased professional responsibilities, which means change in their roles as teachers. These new responsibilities imply increased training and time on the job, and implicit in the concept of advancement is professional competence as a teacher, however it is measured. Teachers are not chosen to be paid more simply for continuing to perform their same functions; they are paid more for assuming increased responsibilities in the instructional program. They are selected on the basis of their experience and qualifications for the job by a professional panel and are retained only as they are able to perform adequately in their capacities. The Temple City Differentiated Staffing Plan, almost wholly designed by teachers, offers a way for teachers to receive remuneration of $20,000 per year by differentiating teaching roles and systematically enlarging their authority and decision-making powers to shape the instructional program.

The Temple City plan is not a brand new idea. Aspects of the plan have been espoused by Myron Lieberman,[2] J. Lloyd Trymp,[3] and Robert Bush and Dwight Allen[4] at Stanford University. Allen was instrumental in developing the Temple City project, funded by the Charles F. Kettering Foundation of Denver, Colorado, for an 18-month study. The TEPS program of the NEA has also been active in proposing differentiated roles for professional personnel. The strength of the Temple City concept of differentiated staffing resides in a high degree of staff participation in its development. Indeed, the process of development is every bit as important as the product, i.e., an acceptable organizational design to implement the ideas of the professional staff.

The original model of differentiated staffing was developed by Allen and presented to the California State Board of Education in April of 1966 (see Figure 1). Later it was altered in the work done by Temple City teachers (see

Figure 2). At the present, this model is undergoing further revision as a result of financial studies and further staff feedback. A brief sketch of the job descriptions follows:

Teaching Research Associate

The Teaching Research Associate (TRA) is the "self-renewal" unit of the organization. His primary function is to introduce new concepts and ideas into the schools. He is well-versed in research methodology and evaluation of instruction. The TRA may conduct field studies, but his major purpose is to translate research into instructional probes at the school level. The TRA functions in the present structure as a classroom teacher, as do all of the other personnel in the differentiated staffing plan, although in a limited capacity. In this way he does not lose sight of the receivers of his efforts. The TRA represents the apex of professional advancement for the aspiring teacher.

The Teaching Research Associate meets all of Rogers,[5] criteria for initiating planned change in education. These are: (1) base the topics investigated on felt needs of practitioners; (2) create an educational structure to facilitate change; (3) raise the practitioners' ability to utilize the research results. Part of the TRA's responsibilities are implied in the third criterion mentioned by Rogers. Much of his liaison work with staff and current research will be to increase the sophistication level of teachers and help them use it in practice and evaluate its effectiveness.

Teaching Curriculum Associate

The Teaching Curriculum Associate (TCA) also must possess knowledge of research methodology, except that his knowledge is more applicable to curriculum theory, construction, and evaluation. In addition, the TCA would be adept at modifying national curriculum studies to meet local needs and local teacher proclivities.

The TCA also works at raising the level of teacher specialization in specific subject areas. He is more of a communications specialist than the TRA. However, due to the overlap in some functions, and because it is difficult to separate research from curriculum and instructional improvement studies, these two functions will probably be combined into one position: the Teaching Research-Curriculum Associate.

The Senior Teacher

The senior teacher is primarily responsible for the application of curriculum and instructional innovations to the classroom. The senior teacher is an acknowledged master practitioner, a learning engineer, a skilled diagnostician of the learning process. He is the teacher's teacher.

The senior teacher as an instructional advisor heads a subject group and represents this area on the school academic senate. He shares with the school principal the selection, performance, and evaluation of his colleagues in that subject specialty. In a team teaching situation, the senior teacher would function as a team leader. At least one-half of this teacher's day would be with students.

The Staff Teacher

In a sense, all teachers in the differentiated staffing plan are staff teachers. A full-time staff teacher spends his school hours with students. He performs the same professional functions as most teachers in typical school districts. In a differentiated staffing plan the staff teacher is relieved of semi-professional and clerical duties by employment of the following assistants:

The Academic Assistant:

The academic assistant is a skilled paraprofessional, or a teacher intern (associate teacher) from a nearby college or university. He works with students and may instruct in special or skilled areas. He may also maintain physical materials, grade papers, and supervise resource center activities or student study.

The Educational Technician:

The educational technician assumes many of the clerical and housekeeping tasks that consume so much professional time in the present organization. The technician keeps records, duplicates materials, types, supervises student movement on campus, takes attendance, etc. The technician has little, if any, instructional responsibilities.

The Adacemic Senate:

Teachers are formally involved in school decision making through the organization of an academic senate on each campus. One of the responsibilities of senior teachers is to represent the staff in the establishment of school policies relating to the educational program and its improvement.

The School Manager:

In addition, the principal's role is differentiated by establishing a position called school manager. The school manager assumes responsibility for most of the business functions of school operation and thus relieves the principal for attention to the instructional program. It is hoped that eventually the principal will also refurbish his image as a teacher by assuming some direct teaching responsibilities with students. Most principals would find this impossible now, since they too are overburdened with paperwork and adminis-trivia.

This combination of teacher specialists and administrator generalists would provide the school with the best judgments of all the professionals occupied with shaping a dynamic instructional program. School leadership is clearly enhanced with teachers exercising judgment as to how the instructional program should be improved. The principal's role is strengthened, since he can count on the specialized expertise of his senior teachers in the hiring and evaluation of the instructional staff. Teachers are intimately involved in professionalizing and discipling their own ranks through the academic senate. This is crucial for full-fledged maturity; effective professional regulation can only occur when teachers assume responsibility for each other's performance. Administrators should welcome this desire for more responsibilities and assist their staffs in learning how to develop and exercise the leadership concomitants to fulfill this important professional role.

A discussion of differentiated staffing would not be complete without mentioning some of the problems the district has encountered in studying this concept. Differentiated staffing challenges a basic assumption inherent in the organizational structure of education. The myth that all teachers are equal exercises a powerful influence upon our thinking. The present organizational structure which assumes that one teacher can be all things to all students is a barrier of the first magnitude, especially at the elementary level.

One way of avoiding change and protecting oneself is for the teacher to shut his door and isolate himself with his 30 children. The position of the teacher in his classroom fortress is easier and more secure without the scrutiny of his colleagues. To differentiate teacher roles is contrary to the standard organizational pattern of elementary education for the last 100 years. When teachers perform different functions and assume new responsibilities they cannot be with children all day long. They must have time during the school day to plan with colleagues and conduct studies or meet with individual students. This implies some type of flexible scheduling, plus dual use of instructional models and resource facilities. This in turn means that teachers must delegate to paraprofessionals many nonprofessional responsibilities that do not demand a high degree of skill and training.

We have found a greater resistance at the elementary level to concepts of differentiated staffing than at the secondary. Some teachers fear that team teaching, use of paraprofessionals, resource centers, and flexible scheduling will permanently "damage" their children. They fail to recall that the present organizational structure established in 1870 at the Quincy Grammar School was organized for administrative convenience and that critics pointed out even then that it rather callously ignored the needs of continuous educational progress for each individual student.

Also we noted that a greater proportion of women than men object to teachers assuming a professional disciplinary role with their colleagues. This is especially true at the primary level, where a traditionally protective environment shields both students and teachers from decision making and colleague interaction.

At the secondary level, the idea of differentiated staffing was received more warmly. Here more teachers are men and the tradition of subject area specialization and leadership through department chairmen has been well established.

However, some teachers at the secondary level are just as immobilized in their six-period day, self-contained classrooms as their elementary counterparts.

Some administrators will be uncomfortable in sharing the decision-making process with their staffs. Fear of losing status is an important consideration when proposing new roles for teachers. One must remember that almost all other roles in a school district hinge upon that of the teacher. If the teacher base is expanded upward, a shift is required in functions all the way to the superintendent. This means that in the Temple City plan teachers (teaching research associates) will sit with principals in an academic coordinating council headed by the superintendent. This district-wide group plans and anticipates district movement. Teachers (teaching curriculum associates) will also be a part of the curriculum coordinating council headed by the assistant superintendent. This group articulates curriculum development through the grades. Teacher specialists form an integral part of the decision-making machinery with the administrators of the district.

The Temple City plan of differentiated staffing offers a way to emancipate the teacher. It changes and enlarges the roles of teachers, increases their autonomy and decision-making powers, offers career advancement, and places them in a position to assume a regulatory function of their own profession. From the point of the administrator it enhances the leadership potential of his staff and builds in some guarantee that the instructional program will indeed remain vital and strong in all areas. A board of education and community should be encouraged when their teachers are willing to assume a corporate responsibility for the quality of education in their schools. The fact that teachers are disciplining themselves, are constantly in the self-renewal process, and have the freedom to rise as teachers to the top of their abilities and willingness to work means that the collective human resources which lie fallow in every organization are more fully tapped. In the short time our project has been operative we have been amazed at the talent which has emerged from our staff.

The most difficult barrier of all is not physical or financial but the subtle limitations in our vision, attitudes, and expectations, conditioned by one organizational structure for over 100 years. The validity of this structure may have been eroded, but its form has been firmly implanted in our psyches. The ability to rise above our own conditioning and previous expectancy levels is the most difficult problem, for solutions cannot be devised until problems are accurately perceived. Perception is limited when assumptions cannot be questioned. Our inability to see that some of our frustrations stem from traditional assumptions is a tragic dilemma. Differentiated staffing is a concept which challenges a whole host of notions about how American education should be organized and operated. At the moment it may be hearsey; in a decade it may be practice.

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[1] Ronald G. Corwin, "Militant Professionalism, Initiative and Compliance in Public Educatinn," *Sociology of Education*, Vol. 38, pp. 310-31, Summer, 1965.

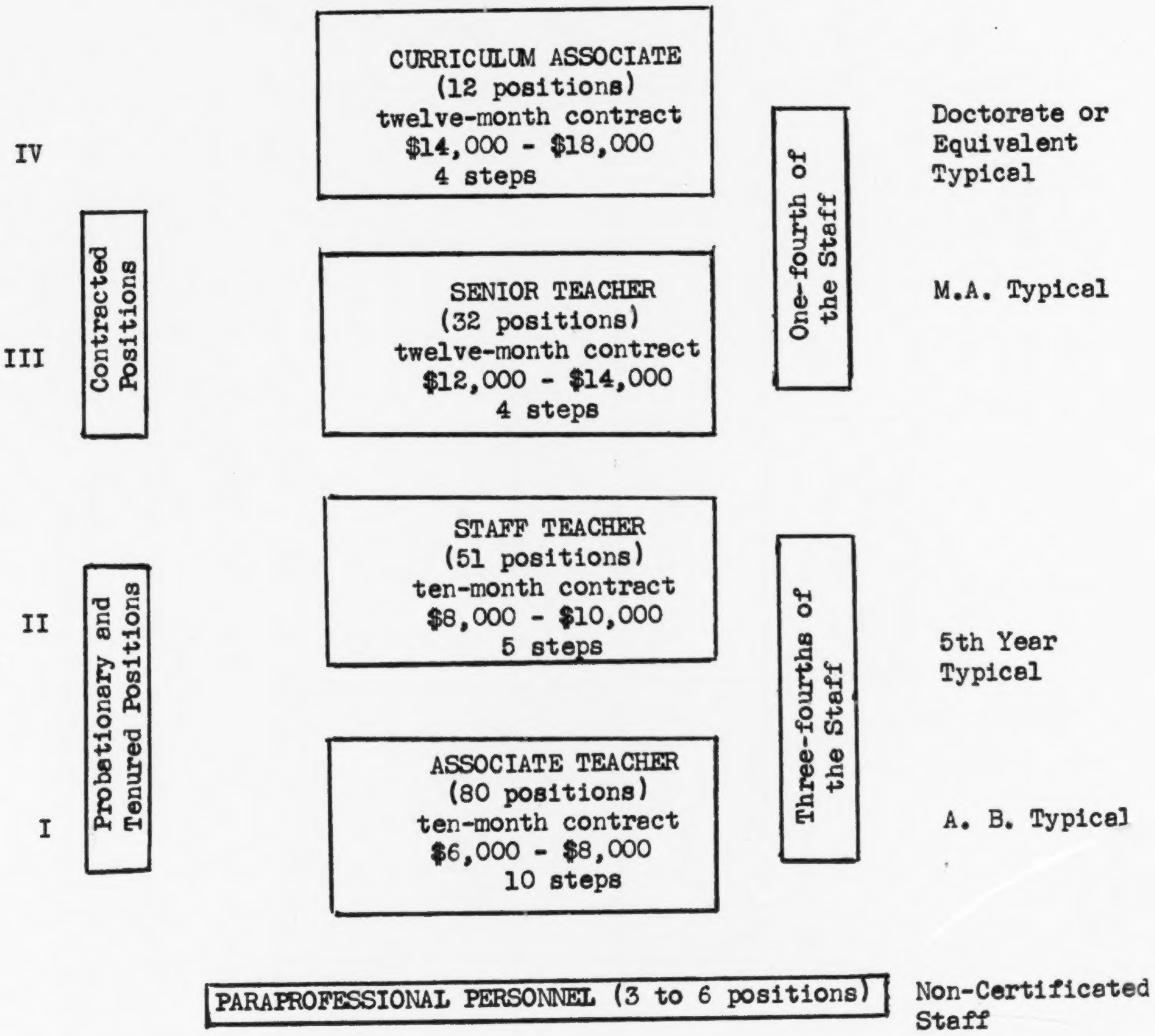
[2] Myron Lieberman, *The Future of Public Education*. Chicago: University of Chicago Press, 1960.

[3] J. Lloyd Trump and Dorsey Baynham, *Guide to Better Schools*. Chicago: Rand McNally, 1961.

[4] Dwight Allen and Robert Bush, *A New Design for High School Education*. New York: McGraw-Hill, 1964.

[5] Everett M. Rogers, "Developing a Strategy for Planned Change." paper presented at a Symposium on the Application of System Analysis and Management Techniques to Educational Planning in California, Orange, California, June, 1967.

FIGURE 1. THE PROPOSED HIERARCHY BASED ON DIFFERENTIATED COMPENSATION AND RESPONSIBILITIES*


CURRICULUM ASSOCIATE
(12 positions)
twelve-month contract
$14,000 - $18,000
4 steps
IV
Doctorate or Equivalent Typical
One-fourth of the Staff
Contracted Positions
SENIOR TEACHER
(32 positions)
twelve-month contract
$12,000 - $14,000
4 steps
III
M.A. Typical
STAFF TEACHER
(51 positions)
ten-month contract
$8,000 - $10,000
5 steps
II
5th Year Typical
Probationary and Tenured Positions
Three-fourths of the Staff
ASSOCIATE TEACHER
(80 positions)
ten-month contract
$6,000 - $8,000
10 steps
I
A. B. Typical
PARAPROFESSIONAL PERSONNEL (3 to 6 positions)
Non-Certificated Staff

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*This model of a differentiated staffing plan was developed by Dwight Allen and was presented to the California State Board of Education in April, 1966.

Teacher Job Analysis Task Force:

Allen Shuey, Temple City High School (Chairman)
William Schmidt, Oak Avenue Intermediate School
Tad Root, Emenetary Schools
Janice Peet, Elementary Schools
Fenwick English, Administration

Non-tenure	Tenure	Non-tenure	Non-tenure	Non-tenure	REGULAR SALARY SCHEDULE PLUS FACTORS
				TEACHING RESEARCH ASSOCIATE - Doctorate or equivalent	Twelve Months $18,000-$20,000
			TEACHING CURRICULUM ASSOCIATE M.S., M.A., or equivalent		Eleven Months $14,000-$16,000
		SENIOR TEACHER M.S., M.A., or equivalent			Ten to Eleven Mos. $11,000-$14,000
	STAFF TEACHER B.A. Degree plus 1 year				Ten Months $6,000-$11,000
ACADEMIC ASSISTANT - A.A. or B.A. Degree					Ten Months $4,000-$5,000
Some teaching responsibilities	100 percent teaching responsibilities	4/5's staff teaching responsibilities	3/5's - 4/5's staff teaching responsibilities	3/5's staff teaching responsibilities	
EDUCATIONAL TECHNICIANS					

FIGURE 2. TEMPLE CITY UNIFIED SCHOOL DISTRICT: A MODEL OF DIFFERENTIATED STAFFING

This model of differentiated staffing was developed by Temple City Teachers. The model is currently being revised to combine the TRA-TCA functions. Salary figures are tentative.

Reprinted with permission from the Temple City Differentiated Staffing Project, Temple City, California

THE TEMPLE CITY STORY -- DIFFERENTIATED STAFFING FOR VITAL LEARNING

EDUCATION IN FERMENT

American education is in ferment.

Despite a surplus of trained personnel, there is a nationwide shortage of approximately 175,000 teachers. That there should not be a manpower problem is highlighted by surveys that indicate that more than one million trained teachers are not in the classroom because they choose to work elsewhere. Moreover, there would be no problem if the nation's annual 200,000 graduates of teacher training institutions would enter and remain in teaching. This shortage and the increased militancy of teachers throughout the nation arise because teaching is not yet completely professionalized.

Teaching lacks career incentives; it is unable to exert holding power and advance its members as their skills increase. It lacks professional autonomy and the power of self-regulation. When surveyed, teachers say they resent the low status and pay they receive as compared with other professions equivalent in training requisites.

Today's teacher is better trained and more aware of the realpolitick than his semi-skilled precursor. Many states now require post-matriculation study and still others demand that teacher training be adjoined with a study major outside of education.

These better trained teachers are chafing under an educational bureaucracy encumbered with a feudal ordering of privileges that assumes that all teachers are alike in skills, that they cannot participate competently and resonsibly in the decisionmaking process, and that they are incapable of setting their own standards. The winds of change are also fanned by a reward system that is at odds with the goal of keeping the best teachers in teaching. Traditionally, teachers are promoted only by leaving teaching and entering school administration. The overwhelming career ambition of men, at least in the elementary grades, is administration. What results from all of this is an imbalance of female instructors in the formative grade levels and a scarcity of effective, male teachers.

The growing dissatisfaction of the American teacher is exacerbated in more action-directed forms of protest. Militantly impatient teachers are attempting to negotiate directly directly with boards of educations and state legislatures. In the shuffle of power relations, education's bureaucracy loses its reason for being and the public is bewildered to find teaching's new locus of accountability. As yet, there are no clear-cut guidelines to define the proper role of education in the molding of responsible and purposeful future citizens.

Merit Pay

Merit pay is one suggested method to keep good teachers in the classroom. As it is generally applied, merit pay is given to teachers regarded as "superior." The concept has serious shortcomings. First,there is the problem of criteria. What constitutes a superior teacher? Who should select him? Will the "organization man" be rewarded instead of the maverick instructor who is equally effective? Even if applied nondiscriminatively, merit pay although supposedly recognizing superiority does not alter job responsibilities. The superior teacher is paid more but is not efficiently deployed. He is an excellent teacher, but is he also an excellent clerk? If not, there is no justifiable reason for him spending upwards of a quarter of his time on purely clerical matters--as is now the standard practice.[1]

If not merit pay, what?

Dr. Dwight Allen of the University of Massachusetts and other prominent educators propose various forms of a teacher hierarchy based on differentiated compensation and responsibilities. Differentiated staffing is patterned according to teacher abilities and is a means to promote teachers as teachers and give them enlarged powers to shape the curriculum they must teach. It fuses together an instructional team that can use to the full advantage the excellent housewife teacher, yet can take advantage of the energy and the initiative of the career teacher.

The Temple City Project

Dr. Allen was invited to Temple City during December of 1965 to explain his concepts. This initial presentation was followed by a community workshop that mapped out a project proposal that was submitted to the Charles F. Kettering Foundation of Dayton, Ohio, for funding. From the outset, teachers were actively involved in the formulation of of staffing policies.

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[1] A survey of Temple City teachers by the Project's Teacher Job Analysis Task Force revealed that actual classroom instruction averages out at 45 percent of the total time allotted to teaching under current staffing and organizational plans. The Task Force recommends that the figure be increased to 65 percent.

One year later (December, 1966), the Kettering Foundation awarded the School District a study grant of $41,840 to devise a rationale for a differentiated teaching staff. This sum was augmented in 1968 by an additional $15,000 grant. To administer the project, District Superintendent M. John Rand activated a project steering committee and empowered it to make reccmmendations through him to the Board of Education.

By virtue of its decisionmaking authority and representational membership, the Steering Committee is an important instrument for the administration of educational innovation.[2]

The Differentiated Hierarchy

The Temple City model of differentiated staffing has at its core a four-level teacher hierarchy and auxiliary personnel support system.[3] It creates the new career patterns so essential for evolving a true profession of teaching. It refocuses teacher efforts to areas of specialization. Salaries ranging to $25,000 are made possible through a more efficient utilization of staff talents.

Multiple entry to teaching is encouraged since the District may hire personnel for any level of the hierarchy and each level has need for a special type of person. Creation of an auxiliary personnel support system facilitates the entry of minority group adults to the educational establishment and it broadens their opportunities to advance up the career ladder to full-time teaching. Curriculum and research specialists are utilized through employment at advanced positions on the hierarchy.

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[2] See section entitled Steering Committee: Novel Dimension for Educational change.

[3] See section entitled A New Structure for Teaching.

The backbone of differentiated staffing is the Staff Teacher, whose qualifications are equivalent to those demanded of teachers elsewhere (viz., a B. A. degree plus the teaching credential). His role under differentiated staffing, however, is qualitatively different. His ancillary housekeeping and clerical duties are reduced to a minimum and absorbed by instructional aides. Increased preparation time permits the Staff Teacher to be more effective in his teaching.

He is more versatile than beginning and provisional teachers who are grouped under differentiated staffing as Associate Teachers. The Staff Teacher is effective in small, medium and large group instruction, while the Associate Teacher is usually inexperienced in all three. Associate Teachers are deployed wherever there is no need for advanced expertise or experience in the subject area or skill level under instruction.

Senior Teachers are responsible for the application of curricular innovations to the classroom. These innovations are first evaluated by the Master Teachers, who hold the hierarchy's top position. They are needed because must of what is generally taught in American schools is not relevant to the lives of most students. The problem is basically that the institution of education has traditionally lacked the ability to "renew" itself, to feed into teaching a steady stream of new ideas in a systematic fashion.

All personnel must teach and all teaching is organized on a flexible schedule permitting increased student contact. Classroom teaching varies from 100 percent teaching for Associate and Staff Teachers, to 50 percent for Senior Teachers and 25 percent for Master Teachers. This common professional experience in the classroom is designed to mitigate against the establishment of a new elite for education. Breaking the bonds of education's adolescence requires also flexibility of organization.[4] If teachers are to have increased time for preparation, if the curriculum is to be constructed for the maximal effectiveness of its instruction, if the advanced roles of differentiated staffing are to function efficiently or at all, and if students are to receive instruction based on their needs, interests and abilities, scheduling flexibility is a must.

Self-Regulation

The professionalization of teaching is evident at all levels of the Temple City Model. Highly qualified teachers can now command top salaries and all teachers can assume regulatory responsibilities for their profession and be actively involved in formulating academic policies.

Teacher evaluation is two way: Associate and Staff Teachers evaluate Senior and Master Teachers and in like fashion Senior and Master Teachers rate the teaching performance of their classroom colleagues. Traditionally, evaluation has been one way in form with school principals periodically inspecting the in-class performance of staff members. No provisions are made for teacher evaluation of the advanced leadership and other support personnel (e. g., curriculum coordinators). As a consequence, critical evaluations are often viewed by teachers as emanating from administrative arbitrariness and not from teacher incompetency.

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[4] See section entitled Flexible Scheduling for Efficient Study.

Under differentiated staffing, the advanced roles of Senior and Master Teachers are regarded as existing as a service and leadership function. Thus, the reason for two way evaluation: those receiving the services are in the best position to ascertain their relevancy. All evaluations are coordinated through the school's prime decisionmaking body--the Academic Senate--and through the District-level Academic Coordinating Council.

The Academic Senates at each school give teachers the major voice in school affairs. They are composed of Senior Teachers, by subject area; school principals serve as chairmen. In the interim period until full deployment of the advanced roles, Senate membership will also include representatives selected by Staff Teachers.

Specific school policies are legislated by each Senate. All members including the chairman (the school principal) have equal power. The Senates also prepare operating budgets for their schools that are submitted to the Superintendent of Schools and the District Business Manager for analysis. Upon approval, the budgets are administered by the respective Academic Senates.

People to fill the advanced roles of the differentiated hierarchy are screened for qualifications by the District Director of Personnel who is assisted by a representative group of teachers in the subject area under consideration. Recommendations for employment are routed to the Board of Education from the Senates via the Superintendent.

Disagreements that may arise between Senate members are referred to the District's Academic Coordinating Council, composed of an equal number of school principals and Master Teachers. The Superintendent is its chairman. Beyond the Council's appellate function, it is important for future decentralization of District-level decisionmaking.

New Role for Principals

The traditional role of principal ("keeper of the Keys") is abolished. In its stead, persons possessing expertise in group dynamics, sensitivity and human engineering are hired to chair the Academic Senates and to be their executive officers. As such, the prototype principal is more social manager than petty administrator. Most state education codes require that he still bear legal accountability for the school; however, his link to power will be as firm (or as weak) as his ability to maintain the quality of professional relations within the social system of the school.

Nonacademic duties of the differentiated principal are assigned to a new administrative position of School Manager, which is completely subordinate to the instructional program.

Project Schedule

Present plans are for the movement into differentiated staffing to proceed at two schools per year if outside funding remains sufficiently high during the transition period. If successful, this will effect full implementation in three years, by school year 1970-1971. Schools are selected for entry into differentiated staffing according to staff readiness as measured by several teacher attitude inventories, both local and national. The phase-in process also is based on the availability of support facilities.[5]

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[5] The tentative project schedule is outlined in Diagram I.

Diagram I. TENTATIVE PROJECT SCHEDULE

School Year	School	Grades
1968 - 1970	Oak Avenue Emperor (Partial Staff Differentiation)	7-8 3-6
1970 - 1971	Cloverly Emperor (Possible K-2 Expansion)	4-6 3-6
1971-1972	Temple City High Longden	9-12 1-6

The Training Program

Differentiated staffing is an untested reorganization of the teaching profession. Consequently, there are no training institutions that are currently producing teacher candidates to fulfill Temple City's needs for differentiated personnel. Teacher training must be "retooled" to produce a new type of teacher product.

For the interim period, Temple City is part of a consortium composed of the Claremont Graduate School and the University of Massachusetts. Qualified personnel that emerge from the consortium's program are drafted to train other staff members. The process, therefore, is regenerative and will not require continued University support after a sufficient number of differentiated educators is achieved. By that time, however, it is expected that the Temple City Model will be adopted by other school districts and that the resulting demand for differentiated personnel will spur other teacher training institutions to follow the lead of Claremont and Massachusetts.

The specific training intensity and sequence for each new role is outlined in Diagram II. The program's training strands are separate in nature, but are also arranged to meet the needs of each staffing classification and can occur simultaneously.

The key training strands are A, B, C, and F. The other strands although important are of lesser priority and are supportive in function.

Strand A (Scholar-Teacher Arranged Studies) positions the trainee in a consultative relation with field groups of 1-3 professors for the major areas of the curriculum. Consultant services include school visits, individual teacher conferences, directed study and occasional large group presentations. The scholar-trainee ratio is approximately one to four.

Strand B (Instructional Management Studies) provides the trainee with a wide repertoire of methods for monitoring classroom teaching. This strand trains teachers to be skilled in the strategies for the individualization of instruction and the development of inquiry and cultural understanding. Tactical decisions in classroom teaching are studied as to their influence on shaping effective learning. These studies stress classroom simulation, field involvement and data collection.

Strand C (Behavioral Study of Organizations) builds within the trainee the theoretical and experimental bases for a smooth transition to differentiated staffing. Individual programs are designed for administrators and the intern Senior and Master Teachers.

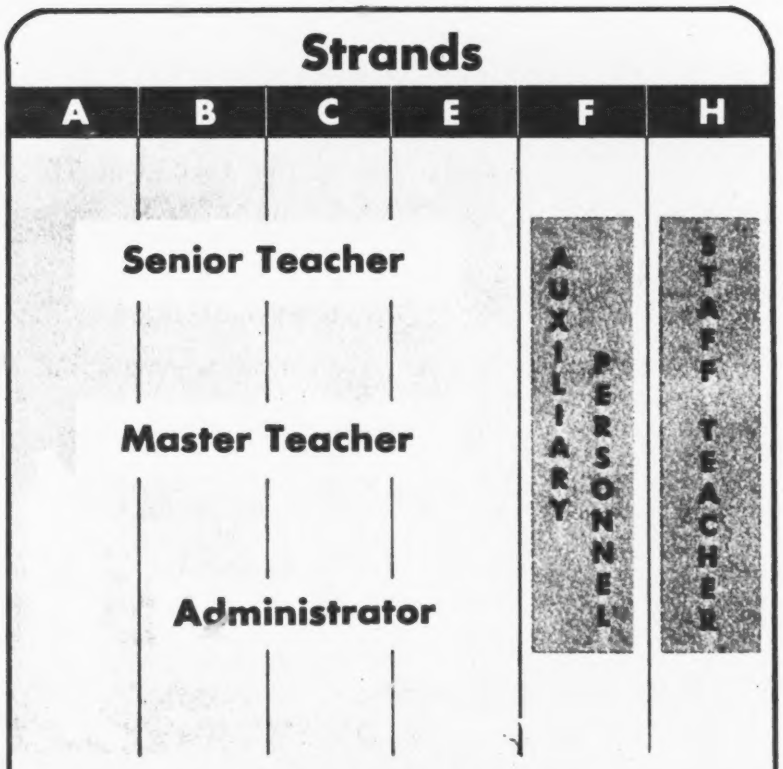

DIAGRAM II

Staff Teachers are administered the three-month long Training **Strand H (Micro-Teaching).** Senior Teachers progress in the training program in the following fashion: **Strand E (Model Building and Human Relations),** three months, **Strand B (Instructional Management Studies),** one year, **Strand A (Scholar-Teacher Arranged Studies),** five months, and **Strand C (Behavioral Study of Organizations),** five months. For Master Teachers, the training sequence is **Strand E (Model Building and Human Relations),** three months; **Strand A (Scholar-Teacher Arranged Studies),** one year and five months, **Strand B (Instructional Management Studies),** five months, and **Strand C (Behavioral Study of Organizations),** five months. The administrative training program begins with **Strand C (Behavioral Study of Organizations)** for one year and ten months, and proceeds to **Strand B (Instructional Management Studies)** for five months, and ends with **Strand E (Model Building and Human Relations)** also for five months. The Auxiliary Personnel Training program is encompassed by **Strand F (Auxiliary Personnel Training)** which runs for five and one-half months.

Strand F (Auxiliary Personnel Training) is conducted by a resident instructor who is sensitive to the problems of the minority groups from which instructional aides are recruited. Training centers on the achievement of basic clerical and housekeeping skills and their relation to the educational system.

Strand E (Model Building and Human Relations) is a survey of relevant innovations in education and an exercise in the construction of substitute models of specific innovations. Strand H (Micro Teaching) arms the candidates for Staff Teacher with an alternative method of evaluating their colleagues.

Strand D (Evaluation)

Strand D's formal study program is supplemented by an ongoing, on-the-scene monitoring of the developing behavior, perspectives and problems of the emerging staffing roles. This monitoring revolves around an internal evaluation of the entire training program. All trainees take part in the process.

An independent evaluation also is conducted by the Project Evaluation Board, a representative group of specialists who give professional advice and offer technical assistance where necessary to the project staff.

Objectives for the Staffing Project are based on learner, teacher, and societal needs.[6] The Project is successful only if these needs are satisfied at a lower cost than that feasible under the traditional organization.

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[6] Learner needs are measured by the Temple City High School Five Year Follow-up Study, 1963. Teacher needs are reflected in the Report on Teacher Supply and Demand, 1965-1975 for the California State Board of Education by the Arthur D Little Company and in Supply and Demand in Public Schools, 1967, published by the National Education Association.

Interim evaluations of differentiated staffing at Oak Avenue Intermediate School and flexible scheduling and partial staff differentiation at Emperior Elementary School have been generally favorable. Teachers report an increase in individualized instruction and point out that the instructional program is unequivocally superior to a traditional program. Further, they indicate a great deal of personal satisfaction with what they have designed, even though they are working visibly harder than before. Not one teacher noted in extended interviews with the Project Director that it was not worth the extra efforts to make differentiated staffing operational.

The Financial Plan

The advanced teaching positions of differentiated staffing can be afforded only by a dispersement of a specific percentage of teachers into Staff and Associate Teacher positions.

All new teachers hired by the District enter employment on a differentiated salary schedule. Currently employed staff members have the option of remaining on the traditional schedule as Staff Teachers or converting over to the differentiated pay system.

Teachers that choose to convert will be advanced on the schedule

Societal needs are measured by A Plan for Evaluating the Educational Programs in Pennsylvania. It is expected that revisions will be made as the staffing model is implemented. This will provide constant analysis of the relative adequacy and validity of the goals, operational definitions and criteria for the goals of differentiated staffing.

faster than they would normally over the short term. The differentiated schedule, however, has a lower salary ceiling. Proximity to retirement and confidence of ability to be promoted to the higher teaching ranks are two factors that teachers weigh when considering the short term advantages of conversion and the long term implications of standing pat.

It is anticipated that the 175-position teaching staff will remain at its current staffing level at least until school year 1972-1973. Staff members in the interim are expected to redistribute themselves along these lines: Master Teacher, four positions; Senior Teacher, 20 positions; Staff Teacher, 85 positions; Associate Teacher 66 positions.

During the transitional period, differentiated staffing must be partially supported by outside funding under terms of the Education Professions Development Act. This Federal statute offers prime assistance in training District personnel to occupy the new positions made possible by differentiated staffing. The added financial resources are vital if disruptive personnel displacements and associated deterioration of staff morale are to be avoided. These increased costs are transitory in nature and are distributed over a five-year period after which time offsetting savings should equal the expense of the current teaching staff with normal cost-of-living increments. Thereafter, any increased costs would be for instructional aides necessary to carry out flexible scheduling.

For Temple City, costs will peak during school years 1969-1970 and 1970-1971 when the largest proportion of the teaching staff will redistribute themselves onto the differentiated salary schedule.

A NEW STRUCTURE FOR TEACHING (See Diagram III.)

Here's a breakdown of the various levels of the Temple City Model:

The Associate Teacher

The Associate Teacher is a beginner, the first year teacher. He has a B. A. degree or is a teacher intern. He can be protected by tenure. He has full time teaching responsibilities. His teaching load, however, is lighter and less demanding than that of the Staff Teacher. He is less sophisticated in methodology and in pupil diagnosis than other staff members. His salary range is $6500-$9000.

The Staff Teacher

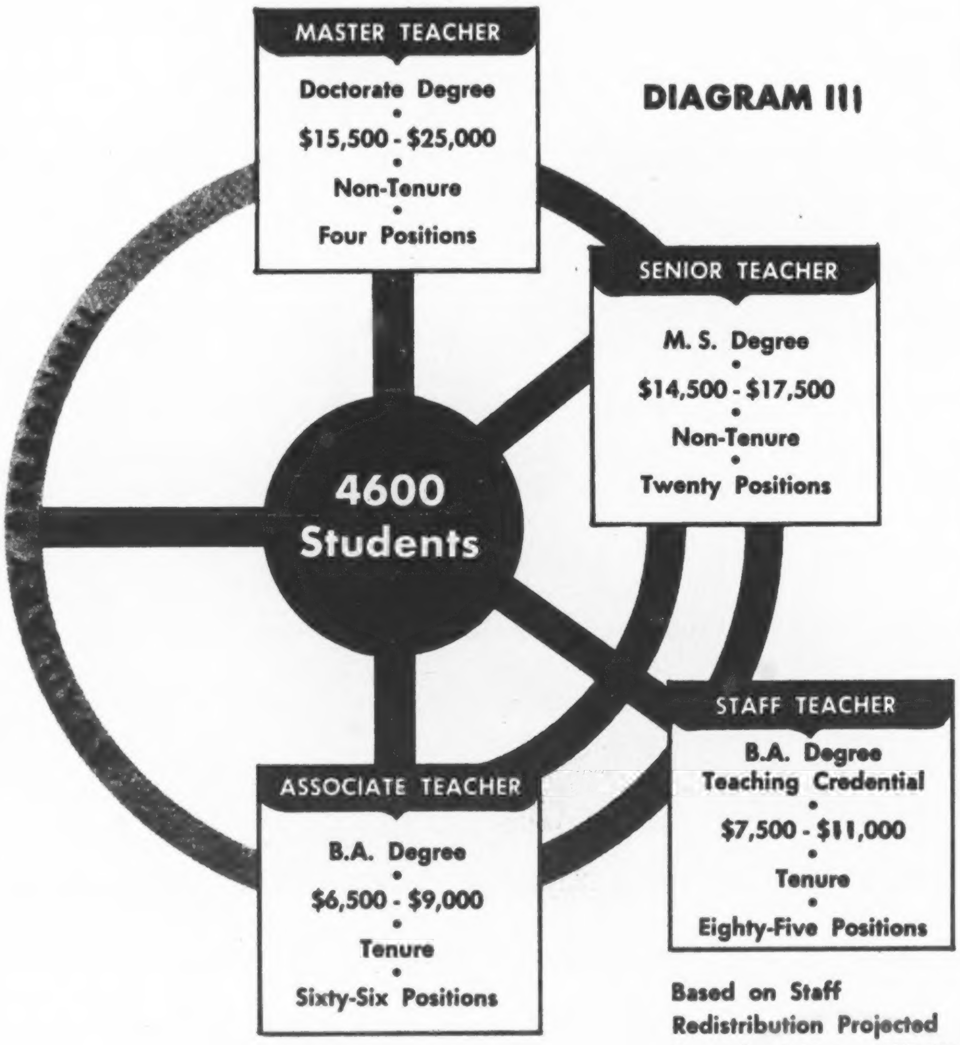
The Staff Teacher is highly experienced in classroom teaching and is an expert in at least one of the several learning modes (e. g., small group instruction). He, too, has full-time teaching responsibilities. His minimum educational achievement is a B. A. degree and a valid California teaching credential. He can diagnose in his students the basic learning problems. His salary range is $7,500-$11,000.

He is protected by the tenure laws. Movement in the differentiated hierarchy will not affect his tenure status; all Master and Senior Teachers have tenure as Staff Teachers.

The Senior Teacher

The Senior Teacher is the teacher's teacher. He is the master practitioner in his subject area. He is primarily responsible for the

DIAGRAM III


MASTER TEACHER
Doctorate Degree
$15,500 - $25,000
Non-Tenure
Four Positions
SENIOR TEACHER
M. S. Degree
$14,500 - $17,500
Non-Tenure
Twenty Positions
4600
Students
STAFF TEACHER
B.A. Degree
Teaching Credential
$7,500 - $11,000
Tenure
Eighty-Five Positions
ASSOCIATE TEACHER
B.A. Degree
$6,500 - $9,000
Tenure
Sixty-Six Positions

Based on Staff
Redistribution Projected
for School Year 1972-73

DIFFERENTIATED HIERARCHY

Senior Teachers coordinate each school's Associate and Staff Teachers in their subject or skill areas; hence, a two-channel flow of service occurs between the position of Senior Teacher and the teaching classifications of Staff and Associate Teacher. The magnitude of differentiation of responsibilities is the greatest between Staff and Senior Teachers. The added responsibilities of the upper echelons of the hierarchy involve leadership of the curriculum, establishment of performance objectives and introduction of research-proven innovations. All other differences existing between positions on the hierarchy are in degree of responsibilities, not in kind of responsibilities.

application of curricular innovations to the classroom. His teaching responsibility varies between 35 and 50 percent of that of the Staff Teacher.

He must have a valid teaching credential and a M. A. or M. S. degree or equivalent in experience pertinent to his professional assignment. His salary range of $14,500-$17,500. The length of his untenured contract varies between 10 and 11 months according to a prearranged summer work program.

The Master Teacher

The Master Teacher is an effective classroom teacher but more importantly he has a scholarly depth of knowledge in his assigned subject area. He must have a valid teaching credential and a Doctorate degree or its equivalent. His teaching responsibility is set at 25 percent of that of the Staff Teacher.

He establishes and maintains a continual program of research and evaluation of his area of curriculum development. He has prior experience in research and curriculum design and their application and measurement. His salary range for 12 months of employment is $15,500-$25,000.

Auxiliary Support Personnel

Instructional Aides work with students and teachers in resource centers, learning laboratories and libraries. Personnel to fill the three categories of Instructional Aides are employed from eligibility lists of job applicants. Persons employed as Instructional Aide I are given a qualifications test at the end of their first year of employment, which if passed will automatically move them to the next auxiliary personnel classification--Instructional Aide II.

The top auxiliary position is Instructional Aide III. There is no automatic advancement to this classification as advancement depends upon an open position.

Duties for each position are differentiated according to the expertise required for their performance.

Clerks are also part of the auxiliary personnel system. They are employed exclusively to provide clerical support to teachers and have no responsibilities for working with students.

STEERING COMMITTEE: NOVEL DIMENSION FOR EDUCATIONAL CHANGE

Differentiated staffing in Temple City is the handicraft of many hours of hard work by members of the committees and task forces of the Project Steering Committee.

Established by Superintendent M. John Rand, the Committee represents an important first step toward involving teachers in the making of the major decisions affecting their profession.

The Temple City Model of Differentiated Staffing has come about through teacher consensus and not by administrative edict. This is ensured by having teachers make up the majority of Steering Committee members and by establishing the policy that all members shall participate with an equal voice.

Teacher representatives are elected by the six school staffs and are apportioned so that there is one representative for every 500 pupils.

Temple City's major teacher groups--the Temple City Education Association and the Temple City Federation of Teachers (AFL-CIO) are entitled to full voting privileges.

The administration is represented by the Superintendent, who also acts as the Chairman of the Steering Committee, the Assistant Superintendent for Business Services, the Director of Projects, the Director of Personnel and Special Services, two of the District's six Principals, and an additional member chosen by the remaining administrative staff.

Membership on the Steering Committee is rounded out by one member of the Board of Education appointed by the President of the Board.

All meetings are open to interested staff members and are normally scheduled to fall on Saturdays, school holidays, or evenings. Committee members are usually compensated for their attendance.

Most of the Project's research work is done in seven task forces and three standing committees. Membership on these bodies must include at least one person from elementary, intermediate, and high school levels of the teaching staff and administration.*

Steering Committee recommendations to the Board of Education may contain a minority opinion at the request of any member of the Steering Committee.

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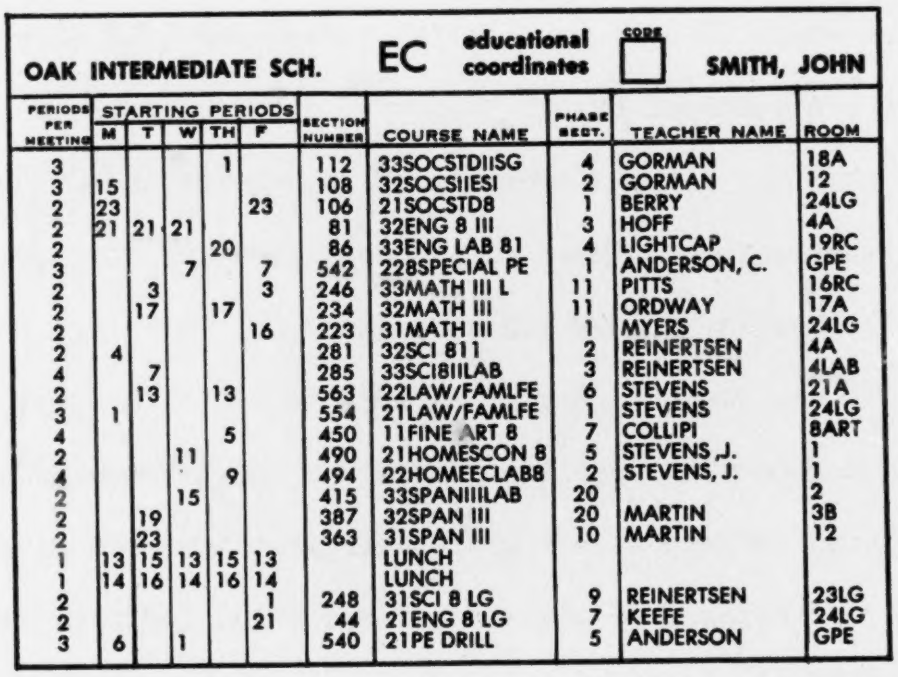
* The existing Steering Committee groups are the Finance and Communications and Public Relations Standing Committees, the Certificated Personnel Advisory Committee, and the Legal Aspects, Personnel Evaluation, Salary, Teacher Job Analysis, Project Evaluation, Linkage, and Flexible Scheduling Task Forces.

FLEXIBLE SCHEDULING FOR EFFICIENT STUDY

Variable Course Structure--Flexible scheduling permits teachers to vary the length and frequency of their classes. At Oak Avenue Intermediate School, the school day is divided into 24, 15-minute modules with three-minute passing periods. The average class length is two modules (33 minutes). Laboratory classes are three modules in duration (51 minutes) to compensate for the time lost each class session in equipment set-up. Classes may meet as infrequently as once a week or as often as every school day.

Independent Study--On the average, 40 percent of the student's school day is unstructured. Most pupils use this time for independent study at their school's various learning centers. There are 16 of these at Oak Avenue. They range in emphasis from the Social Studies Resource Center, to the Mathematics Open Laboratory, to the Library-Media Center. Students unwilling to responsibly plan their free time are given assignments and their attendance is required at specified learning centers during their unstructured time.

Instructional Support System--The major cost of flexible scheduling is for additional facilities and instructional materials that are used by students for independent study. Each resource center and open laboratory is stocked with books, audio-visual media and other specialized equipment. Students may listen to tapes, watch a movie or a film strip, read special material, develop a skill or complete an experiment. At the learning centers throughout the school, teachers leave packets for their students which detail what they may or must do during independent study. No element is more important to a successful flexible scheduling program than sufficient study materials. Investigations of schools that have had unsatisfactory results from flexible scheduling point out an inadequate allication of funds to give students materials related to their work with teachers.



OAK INTERMEDIATE SCH. EC **educational coordinates** CODE ☐ **SMITH, JOHN**

PERIODS PER MEETING	STARTING PERIODS M	T	W	TH	F	SECTION NUMBER	COURSE NAME	PHASE SECT.	TEACHER NAME	ROOM
3				1		112	33SOCSTDIISG	4	GORMAN	18A
3	15					108	32SOCSIIESI	2	GORMAN	12
2	23				23	106	21SOCSTD8	1	BERRY	24LG
2	21	21	21			81	32ENG 8 III	3	HOFF	4A
2				20		86	33ENG LAB 81	4	LIGHTCAP	19RC
3			7		7	542	228SPECIAL PE	1	ANDERSON, C.	GPE
2		3			3	246	33MATH III L	11	PITTS	16RC
2		17		17		234	32MATH III	11	ORDWAY	17A
2					16	223	31MATH III	1	MYERS	24LG
2	4					281	32SCI 811	2	REINERTSEN	4A
4		7				285	33SCI8IIILAB	3	REINERTSEN	4LAB
2		13		13		563	22LAW/FAMLFE	6	STEVENS	21A
3	1					554	21LAW/FAMLFE	1	STEVENS	24LG
4				5		450	11FINE ART 8	7	COLLIPI	8ART
2			11			490	21HOMESCON 8	5	STEVENS ,J.	1
4				9		494	22HOMEECLAB8	2	STEVENS, J.	1
2			15			415	33SPANIIILAB	20		2
2		19				387	32SPAN III	20	MARTIN	3B
2		23				363	31SPAN III	10	MARTIN	12
1	13	15	13	15	13		LUNCH			
1	14	16	14	16	14		LUNCH			
2					1	248	31SCI 8 LG	9	REINERTSEN	23LG
2					21	44	21ENG 8 LG	7	KEEFE	24LG
3	6		1			540	21PE DRILL	5	ANDERSON	GPE

PRIORITY GOALS FOR EDUCATION

What the Prototype Pupil Will Be Like*

If valid, differentiated staffing should measurably improve the learning and socialization processes.

The prototype educational system is evaluated by comparing actual student performance with behavioral changes that are specified in advance. For example, Temple City's prototype graduate will be less likely than other Los Angeles County high school graduates to commit a crime, to be unemployed, to be supported by the public dole, to have a disabilitating heart disorder, to be sued for divorce, to conceive an illegal child birth or to have a membership in a racist or prejudiced group.

Compared to the county average:

He will be more inclined to enter a social service occupation or join a group that is legally trying to reduce and eliminate prejudice and bias toward others. He will be in better physical condition. He will be more likely to see a dentist and physician on a regular basis. He'll have a lesser tendency to become obese or harmfully underweight.

He will be able to score at least at the county average for learning of comparable ability on standardized and valid tests of mathematics, vocabulary, reading comprehension, and oral communication. He will excell on specialty tests in the areas of natural sciences, social sciences, humanities and the arts.

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*These are sample behavioral indicators drawn from "Ten Goals of Education," of the Pennsylvania Department of Instruction. Other indicators are being studied by Temple City teachers and citizens.

While attending school, he and his peers individually and collectively will display behavior which will reduce by at least ten percent per year the number of defacings of school properties and materials and the number of unexcused absences.

Upon graduation, the learner will be able to list at least five occupations in which he might be interested and further list the general skill and knowledge requirements for being able to seek and hold each job. If one of the job alternatives is homemaking, he will be able when given a sample year income to design a budget which will provide for food, shelter, clothes, medical and dental requirements, transportation, amusements and charity.

Within a year after graduation, the learner should be gainfully employed, providing he does not elect to go on to college.

Moreover, upon exit from the Temple City Unified School District, each learner will acquire understanding and appreciation of persons belonging to sicla, cultural and ethnic groups different than his own. If given a list of any minority or majority group, he should be able to list five characteristics in which these members are similar to himself. He should also be able to list at least three ways in which they differ from the way he or his group behaves and why they should be guaranteed the right to do so.

The learner will also acquire the habits and attitudes associated with responsible citizenship. He will be analytical in outlook; he'll be able to identify the causes of current social issues and to set goals for their resolution.

He will be able to identify the various social philosophies for group action--democratic, authoritarian and laissez-faire--and to give at least one example of where each strategy might be the most effective.

Collectively, Temple City graduates will be listed in tabulations of "achievers" (e. g., Who's Who) significantly more frequently than the rest of Los Angeles County. They will have a greater than normal share of patents and copyrights.

C. Kansas City

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DIFFERENTIATED STAFFING AND SALARY PATTERN UNDERWAY IN KANSAS CITY

Donald Hair
and Eugene Wolkey

Male teachers, especially married men, often shun elementary schools because there is little opportunity to advance in status and salary. High caliber teachers are often as not attracted to central city schools because opportunities are not available.

New teachers often become discouraged because they have to carry a full load of responsibility their first year of teaching and receive little helpful supervision.

Reservoirs of talent go untapped because little or no use is made of part-time persons, such as housewives, who may be fully certified to teach but only want to work half days.

All schools, particularly those in large cities, need to consider better uses of teacher talents.

To make better use of teacher talents and, more important, to give children a better education, the Mary Harmon Weeks elementary school and the Martin Luther King junior high school in Kansas City, began a differentiated staffing and salary schedule payment plan last September.

Top flight teachers are the key to good education. Hopefully, differentiated staffing is a way to attract these capable teachers and give them an opportunity to function as professionals.

Basically, what happens in this plan is that teachers who have more responsibility and make more decisions work longer hours and get paid more. Differentiated staffing proposes new roles for teachers. For example, rather than assigning 34 teachers of equal status to staff the elementary school, four different classifications of certificated persons have been assigned, plus university interns and special teachers in fields such as art, music and physical education.

The two schools, which accommodate about 1,000 pupils each and are in central Kansas City, opened for the first time last September. The experimental program, approved by the board of education, will run for two years, at which time it will be decided whether to alter, discontinue or extend the program to other schools in the city. Evaluation, based on stated objectives for the project, will be done by a team from outside the district.

Objectives

All the program's objectives were designed to give boys and girls in these two schools a better education. Specific objectives are as follows:

1. Attract and hold teachers in central city schools through design of staff utilization and career patterns which enable the highly competent teacher to achieve professional status and salary according to his abilities.

2. Bring superior teacher talent to bear on the difficult problems of teaching the disadvantaged student.

3. Provide teachers with the opportunity for continuous self-improvement through contact with other teachers and consultants, and through immediate supervisory assistance at the school level.

4. Provide for professional staff a carefully prepared in-service and on-the-job educational program.

5. Provide a realistic and productive means for the orientation and induction of beginning teachers.

Job Classification

In the past, all teachers were considered equal in the roles they could play. Apparently, it was assumed a teacher's effectiveness could be judged by his educational background and number of years of teaching. This assumption is questionable.

One of the goals of this project has been to list specific functions of teachers and to differentiate roles which can be accomplished by personnel of varying levels of competency. Specific items were categorized with three essentials in mind: responsibilities of teachers do differ, a need exists for establishing career patterns for teachers, and salaries should be differentiated in terms of responsibilities.

The breakdown of job classifications is as follows: coordinating instructors, senior instructors, instructors, associate instructors, interns, student teachers, para-professionals.

Specific descriptions of these classifications and their corresponding salary schedules appear later.

Care was taken to consider the following in defining job categories: the task to be assigned (large group, small group, individual instruction) responsibility for preparation of materials, special competencies required, preparation and development stage of the individual employee, length of the work day or work year, creativeness, talent, attitude, responsibility for diagnosis of learning problems, responsibility for prescribing materials and techniques of instruction.

The model of the next page shows the relationships among the various job classifications in the Kansas City plan.

Although such a program may seem costly, there was a cost increase of only $19,987 in a $300,000 program compared with a traditional elementary school of comparable size, and an increase of $17,678 in a $500,000 program compared with a traditional junior high school of comparable size.

Selection of Staff

Descriptions of the classifications of roles were sent to all schools, colleges and universities in the Kansas City district. Any interested teacher was asked to apply for the position he felt best described his qualifications.

A committee reviewed applications and applicants were judged in terms of the degree to which they fulfilled job specifications for positions.

Summer Workshops

Persons selected took part in inservice workshops designed to prepare for a new kind of school operation.

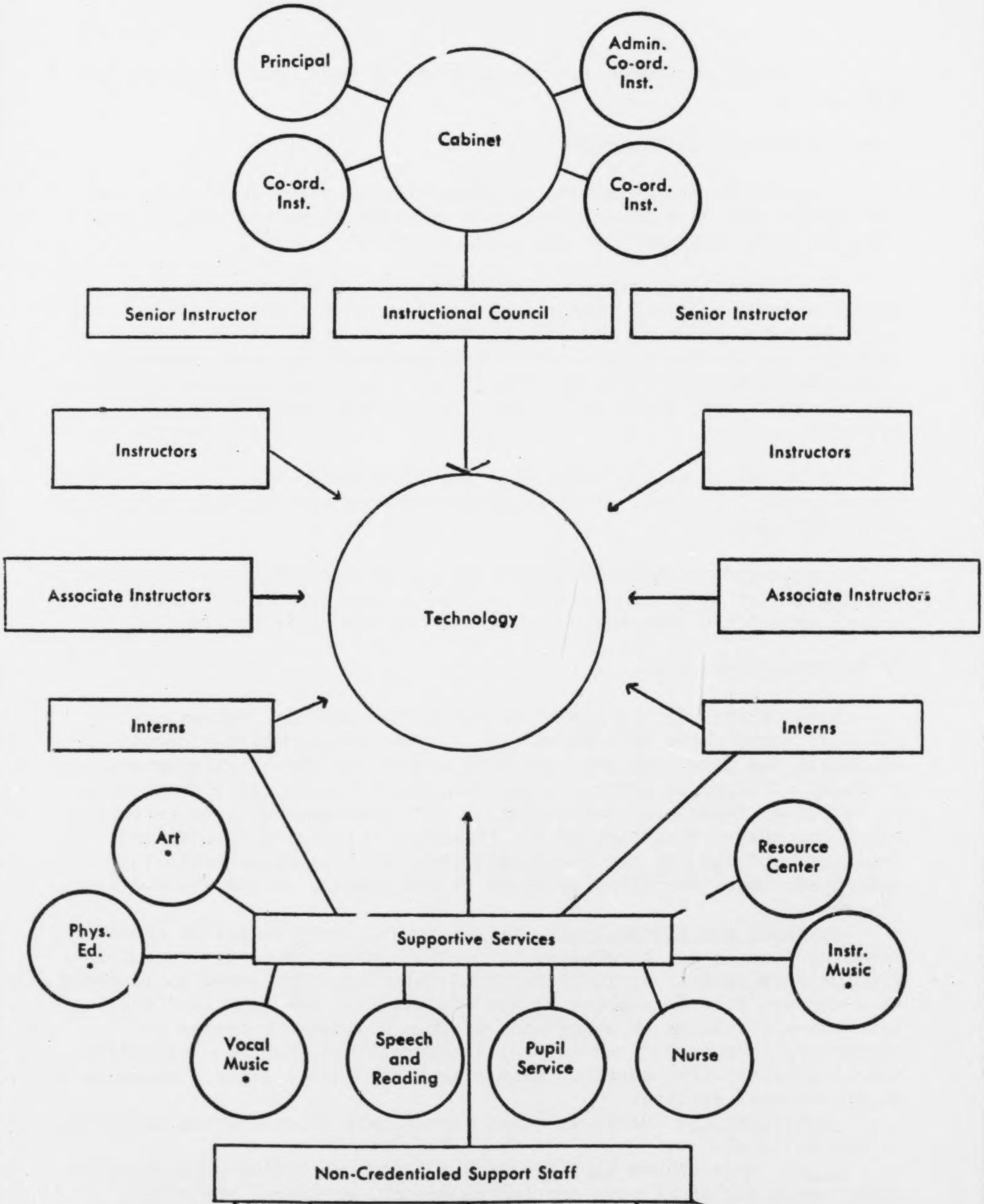
The workshops consisted of two weeks of intensive orientation to a differentiated staffing philosophy. Each person was briefed on his or her role in the plan. Time was set aside for NCTEPS consultants, central office staff and local principals to participate in the workshops. The staff worked in small groups developing philosophies, objectives and programs for the school in which they were to serve.

Continuing Inservice Education

The staffs of these schools have organized their daily programs to include time for planning and evaluation of area needs. Outcomes of these daily sessions will determine agenda items for subsequent sessions on specific topics.

Consultants from area colleges and universities, persons of national prominence, central office staff and community leaders are used to develop awareness and extension of programs and roles as defined by the objectives of this project. Travel to workshops, conventions and schools with similar programs has been authorized.

DIFFERENTIATED STAFF
(KANSAS CITY, MO. MODEL)


Principal
Admin. Co-ord. Inst.
Cabinet
Co-ord. Inst.
Co-ord. Inst.
Senior Instructor
Instructional Council
Senior Instructor
Instructors
Instructors
Associate Instructors
Technology
Associate Instructors
Interns
Interns
Art •
Resource Center
Phys. Ed. •
Supportive Services
Instr. Music •
Vocal Music •
Speech and Reading
Pupil Service
Nurse
Non-Credentialed Support Staff
Clerk
Para-Profes-sionals
Student Teachers
Resource Persons
Other

*Included as subject area specialties in Junior High School Curriculum

Additional workshops for the total staff have been schedules for this summer.

Need for Teacher Involvement

Kansas City was fortunate in being able to start fresh with two new staffs that were interviewed with differentiated staffing in mind. Teachers were involved with the program before it began.

If a traditional school which already has a staff wants to try differentiated staffing, generating teacher involvement is a must. Last year, Montgomery County, Md. teachers went on strike to get a raise in base pay and do away with a staff differentiation program proposed by administrators. The attitude "Why should I get less money when another teacher gets fewer students and more preparation time and money?" was apparent.

At Fountain Valley, Calif., on the other hand, teacher involvement was stressed in a staff differentiation program and teachers seem to be more optimistic.

The following descriptions of job classifications show the criteria the two Kansas City schools used to try to get high teacher involvement and to select the most suitable persons for the different positions.

Coordinating Instructor

Participates in the teaching process and teaches demonstration classes; coordinates activities with a broad segment of the curriculum; evaluates the total program from this segment of the curriculum and suggests a course of action; supervises the ordering and distribution of supplies, materials, and equipment; has responsibility in assessing community needs, investigates and initiates curriculum innovation; evaluates and selects new curricular materials; is responsible to principal; makes decisions relative to the segment of the instructional program.

Personal and Professional Qualifications: well versed in action research techniques; knowledgeable in field of supervision and curriculum development; skillful in human relations; committed to teaching as a career; able in evaluating and implementing new curricula and innovative practices in education; minimum of master's degree in elementary or secondary education, as appropriate; has had successful teaching experience; superior knowledge in a subject field; demonstrated organizational ability.

Certification: Missouri state certificate in elementary education or subject field.

Time: understands that leadership responsibilities will require time beyond the usual work day (after school, evenings, weekends), minimum day, 8 a. m. to 4:30 p. m.; works 44 weeks per year.

Salary: see table.

Area
Coordinating Instructors' Salary Schedule

1968-1969

	Master's Degree	Doctor's Degree
1	$11,066	$11,616
2	11,495	12,045
3	11,935	12,485
4	12,375	12,925
5	12,815	13,365
6	13,244	13,794

Proposed
Senior Instructors' Salary Schedule

1968-1969

Salary Level	I Bachelor's Degree	II Master's or Bachelor's Plus 36 Grad. Hrs.	III Master's Plus 34 Grad. Hrs.	IV Doctor's Degree
1	$6,600.00	$6,930.00	$7,130.00	$7,430.00
2	6,850.25	7,210.50	7,410.50	7,710.50
3	7,100.50	7,491.00	7,691.00	7,991.00
4	7,392.00	7,884.25	8,084.25	8,384.25
5	7,683.50	8,222.50	8,422.50	8,722.50
6	7,975.00	8,560.75	8,760.75	9.060.75
7	8,266.50	8,899.00	9,099.00	9,399.00
8	8,563.50	9,237.25	9,437.25	9,737.25
9	8,860.50	9,575.50	9,775.50	10,075.50
10	9,157.50	9,944.00	10,144.00	10,444.00
11	9,454.50	10,318.00	10,518.00	10,818.00
12	9,751.50	10,692.00	10,892.00	11,192.00
13		11,066.00	11,266.00	11,566.00
14		11,440.00	11,640.00	11,940.00
15		11,814.00	12,014.00	12,314.00

Senior Instructor

Serves as a team leader; participates on the team as a full-time teacher; is a member of the instructional council for the school; diagnoses and prescribes for the needs of the individual children in his team; supervises training of student teachers; exerts leadership in a subject field (in junior high); plans and schedules daily and long range activities, is responsible to the coordinating instructor.

Personal and Professional Qualifications: ability to lead members of a team; interest in and willingness to share and try innovative experiences; demonstrates a knowledge of the total school curriculum; major preparation in a subject field (in junior high); minimum of a bachelor's degree in education plus acceptable graduate work; demonstrated successful classroom teaching experience.

Certification: Missouri state certificate in elementary education or subject area.

Time: work day, 8 a. m. to 4:30 p. m.; works 40 weeks per year.

Salary: see table.

Instructor

Participates on team as a full-time teacher; works with individuals and small groups in enrichment and developmental activities; responsible for large group presentations in his field of specialization; takes part in innovational activities; aids pupils in selecting adequate materials; follows plans as scheduled; is responsible to the senior instructor of his team.

Personal and Professional Qualifications: willingness to participate in a program of on-going inservice educational activities; minimum of a bachelor's degree in elementary education or secondary education; demonstrated successful teaching and/or student teaching experience; interest in and willingness to try innovative experiences.

Certification: Missouri state certificate in elementary education or subject area.

Time: follows schedule of regular teaching day as defined in the "Administrative Code"; minimum day, 8 a. m. to 3:30 p. m.; works 40 weeks per year.

Salary: see table.

Associate Instructor

Part-time teacher; participates in teaching as assigned by the Senior Instructor; uses plans and schedules developed by the team; responsible to the senior instructor.

Personal and Professional Qualifications: B. A. degree

Certification: Missouri state certificate in elementary education or secondary education.

Time: Five and one-half hour school day; works 40 weeks per year.

Salary: see table.

Instructors' Salary Schedule

1968-1969

	I	II	III	IV
Salary Level	Bachelor's Degree	Master's or Bachelor's Plus 36 Grad. Hrs.	Master's Plus 34 Grad. Hrs.	Doctor's Degree
1	$6,000.00	$6,300.00	$6,500.00	$6,800.00
2	6,227.50	6,555.00	6,755,00	7,055.00
3	6,455.00	6,810.00	7,010.00	7,310.00
4	6,720.00	7,167.50	7,367.50	7,667.50
5	6,985.00	7,475.00	7,675.00	7,975.00
6	7,250.00	7,782.50	7,982.50	8,282.50
7	7,515.00	8,090.00	8,290.00	8,590.00
8	7,785.00	8,397.50	8,597.50	8,897.50
9	8,055.00	8,705.00	8,905.00	9,205.00
10	8,325.00	9,040.00	9,240.00	9,540.00
11	8,595.00	9,380.00	9,580.00	9,880.00
12	8,865.00	9,720.00	9,920.00	10,220.00
13		10,060.00	10,260.00	10,560.00
14		10,400.00	10,600.00	10,900.00
15		10,740.00	10,940.00	11,240.00

Proposed

Associate Instructors' Salary Schedule

1968-1969

Salary Level	Bachelor's Degree	Master's or Bachelor's Plus 36 Grad. Hrs.
1	$3,600.00	$3,800.00
2	3,700.00	3,900.00
3	3,800.00	4,000.00
4	3,900.00	4,100.00
5	4,000.00	4,200.00

Student Teacher

Follows activities as determined by the college or university student teaching policy; participates in observing and teaching activities as prescrabed by the senior instructor; is responsible to the assigned senior instructor.

Personal and Professional Qualifications: senior college or graduate student participating in student teaching; be working toward a certificate in teaching; willingness to participate in a program of inservice educational activities.

Certification: none.

Time: follows work-day schedule as prescribed by college or university advisor.

Salary: not applicable for student teachers.

Intern

Is a fulltime intern for a semester; participates in teaching activities as prescribed by the coordinating instructor; follows the course of action as described by his university or college advisor; contributes to the teaching team in a field or fields of instruction; is responsible to the coordinating instructor.

Personal and Professional Qualifications: graduate student intern; be working toward a certificate in teaching; willingness to participate in a program of on-going inservice educational activities.

Certification: internship status with a college or university.

Salary: $2,000 per semester.

Time: follows schedule of regular teaching day as defined in the "Administrative Code".

Paraprofessional (Teacher Aide)

Full-time or part-time member of the staff; does clerical duties as assigned by instructors; supervises movement of children; takes daily attendance; prepares instructional materials; prepares orders for instructional materials and supplies; sets up and operates machines as required; is presponsible to coordinating instructor, senior instructor, and instructors as assigned; follows workday time schedule which varies according to need.

Educational Requirements: high school diploma (some college work desirable).

Personal Qualifications: relates positively to children; willingness to participate in a program of on-going, inservice educational activities; demonstrates acceptable oral speech patterns.

Certification: none.

Salary: placement on salary schedule for teacher aides (complete schedule not available).

Organization of the Kansas City Schools

The tables on the next page show how many teachers there are in each class in the two Kansas City schools. Also shown is the Martin Luther King junior high school's differentiated staff organization.

Evaluation

The two-year experimental program of differentiated staffing will be evaluated based on the accomplishments of the specific objectives stated earlier.

In addition to internal staff evaluation in daily planning sessions, an advisory committee composed of the superintendent of schools, representatives of the instructional division, personnel department, extended services, research department and the instructional council of the local school will evaluate the program in its relationship to the total school district's objectives.

An outside team will develop an evaluation plan, formulate procedures, prepare necessary instruments, implement the plan and prepare preliminary and final evaluation reports.

The key questions will relate to pupils. Are boys and girls in this school getting a better education than they did before? Is attendance better? We will consider also whether we have been able to attract and hold superior teachers, whether the induction and orientation of new teachers has been more effective, and whether teacher growth is greater with this plan.

On the basis of this information, the future of this differentiated staffing project can be determined.

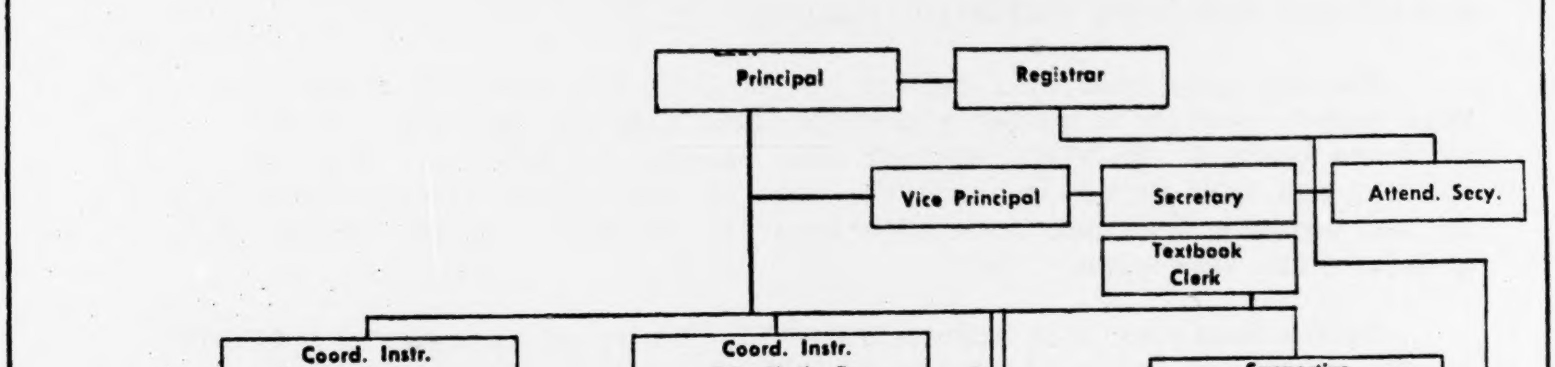
A Look Into the Future

This is only one plan for a new kind of staffing pattern. Undoubtedly, considerable modification will be required during the implementation. It is not easy to cast off old ideas about staffing or the roles teachers should assume in a building. Refinement is needed in the differentiation between the levels of job classification as defined. It is hoped that the total staff of these two schools, in conjunction with the central office staff, can discover new and more effective ways of using professional talent to create a better education for our children.

Mary Harmon Weeks Elementary School

	Coord. Instr.	Senior Instr.	Instructor	Assoc. Instr.	Intern
Kdg.	1	1	1	1	2
Early Pri.		1	2	2	
Mid. Pri.		1	2		
Late Pri.		1	1		
Grade 4	1	1	2		2
Grade 5		1	2	1	
Grade 6		1	1		
	2	7	11	4	4

Differentiated Staff Organization for Martin Luther King Junior High School


Principal
Registrar
Vice Principal
Secretary
Attend. Secy.
Textbook Clerk
Coord. Instr. Eng. Soc. St. Fine Arts.
Coord. Instr. Sci., Math, Pr. Arts, P. Ed.
2
Supportive Services
Sen. Instr.
Lang. Arts (2) Soc. Studies (1)
Math. (1) Sci. (1) Ind. Arts (1) Fine Arts (1)
7
Counselors (2)
Secretary
Instr.
Lang. Arts (4) Soc. St. (5) For. Lang. (2) Mus. (3) Art (1)
Sci. (2) Math. (4) P. Ed. (4) Hmkg. (2) Ind. Art (2) Bus. (1)
30
Home Sch. Coordinator
Assoc. Instr.
Lang. Arts (2) Soc. St. (2)
Math. (2) P.E. (1) Ind. Arts (1)
8
Librarian-Instructor
Para Professional
Secretary
Intern
Soc. St. (1)
Math (1) Sci. (1)
3
Spec. Educ. (2) MR Instructors
⅓ Para-Prof.
Student Teachers
(2)
(2)
4
Nurse
Para-Professionals
(3⅓)
(3⅓)
6
Part Time-Para Prof. Piano Accompanist (2)

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A PLAN FOR DIFFERENTIATED STAFFING:

PUBLIC SCHOOLS, KANSAS CITY, MISSOURI

(A Case Study)

Donald Hair and Eugene Wolkey

September 3, 1968; a new pattern for staffing was implemented at Mary Harmon Weeks Elementary School and Martin Luther King Junior High School in Kansas City, Missouri. This plan is seen as a major thrust in providing a better program for boys and girls in these schools. For example, rather than assigning 34 teachers of equal status to staff the elementary building, four different classifications of certificated persons have been assigned, plus university interns, plus special teachers in fields such as art, music, and physical education.

This is the beginning of an experimental program designed to provide an opportunity for teachers to remain in the teaching process and still advance in status and in salary. Top-flight teachers are the key to good education. Hopefully, differentiated staffing is a way to attract these very capable teachers - and then give them an opportunity to function as professionals.

How did this come about?

Perspective

A new junior high school and a new elementary school will open their doors to Kansas City school children for the first time in September, 1968. Each will accommodate approximately 1,000 pupils, and will be located in the central part of the city.

The children in the community to be served by these schools have special needs - reading achievement is low; arithmetic skills are not up to grade level; considerable work is needed in speech. A real overhaul is in order. In an effort to better meet these needs, several things have been planned - the buildings will be open and adaptable to various uses; the curriculum will be modified; the organization will utilize teams of teachers; the schedule will be flexible. A new look at staffing is then, very appropriate. Because these are new schools and new staffs must be created, an ideal opportunity exists for trying out a new pattern.

On April 10, these items were discussed at a meeting of the Board of Education and the Board approved the formation of an Advisory Committee to consider the desirability of establishing a differentiated staffing plan for these two new schools. The Committee included the principal and vice-principal from each of the new schools, teacher representatives from elementary and junior high schools in the city, college and university personnel, community representatives, and persons from the instructional division and the personnel department of the school district. Dr. Roy Edelfelt, Executive Secretary, NCTEPS, served as a consultant to this Committee at the first meeting and provided guidance and assistance in the development of the plan which was finally endorsed by the Committee.

On May 2, the Board of Education approved the plan for a new kind of staffing pattern for these two schools. This experimental program is to run for two years at which time a decision will be made to alter the program, discontinue it, or extend it to other schools in the city. Evaluation, based on the stated purposes for the project, will be accomplished by a team from outside the school district.

Why Change?

Particularly in schools located in large urban centers it is imperative that better uses of teacher talents be considered. It is difficult to get men teachers, especially married men, into the elementary schools because there is little opportunity for advancement in status or in salary. High caliber teachers, men or women, cannot be attracted to the central city schools unless career opportunities are available. New teachers often become discouraged because they are asked to carry a full load of responsibility the first year of teaching, and during this difficult year they are provided with very little helpful supervision. Too many promising teachers flee to the suburbs where the job appears less difficult.

Reservoirs of talent go untapped because, in the instructional process, little or no use is made of part-time persons. There might well be many housewives, fully certificated to teach, who are not willing to work a full day. This talent should be utilized.

It is time to try some plans which will help to put more "professional opportunity" into the teaching profession.

Specific Objectives

To reiterate - the focus of all activity is to accomplish a better education for the boys and girls in these two schools. Differentiated staffing is seen as a major effort to help us achieve this better program. All of the following objectives relate to one particular purpose - the improvement of services to pupils.

The specific objectives are as follows:

- Attract and hold talented teachers in central city schools through design of staff utilization and career patterns which enable the highly competent teacher to achieve professional status and salary commensurate with his abilities.
- Bring superior teacher talent to bear on the difficult problems of teaching the disadvantaged student.
- Provide teachers with the opportunity for continuous self-improvement through contact with other teachers and consultants, and through immediate supervisory assistance at the school level.
- Provide for professional staff a carefully prepared in-service and on-the-job educational program.
- Provide a realistic and productive means for the orientation and induction of beginning teachers.

Explanation of Job Classifications

In the past, teachers have been assigned positions in schools without consideration of the different kinds of roles they might assume. All teachers were considered to be equal in all respects. Apparently, it was assumed that their effectiveness could be judged by their educational qualifications and the number of years of service. This assumption is questionable. One of the goals in this particular project has been to list specific functions of teachers and to differentiate roles which can be accomplished by personnel of varying levels of competency. The specific items were categorized with these three essentials in mind: it was recognized that responsibilities of teachers do differ; a need for the establishment of career patterns for teachers was perceived; it was acknowledged that salaries should be differentiated in terms of responsibilities.

The following job classifications were an attempt to differentiate roles of the personnel in these two schools:

Coordinating Instructors
Senior Instructors
Instructors
Associate Instructors
Interns
Student Teachers
Paraprofessionals

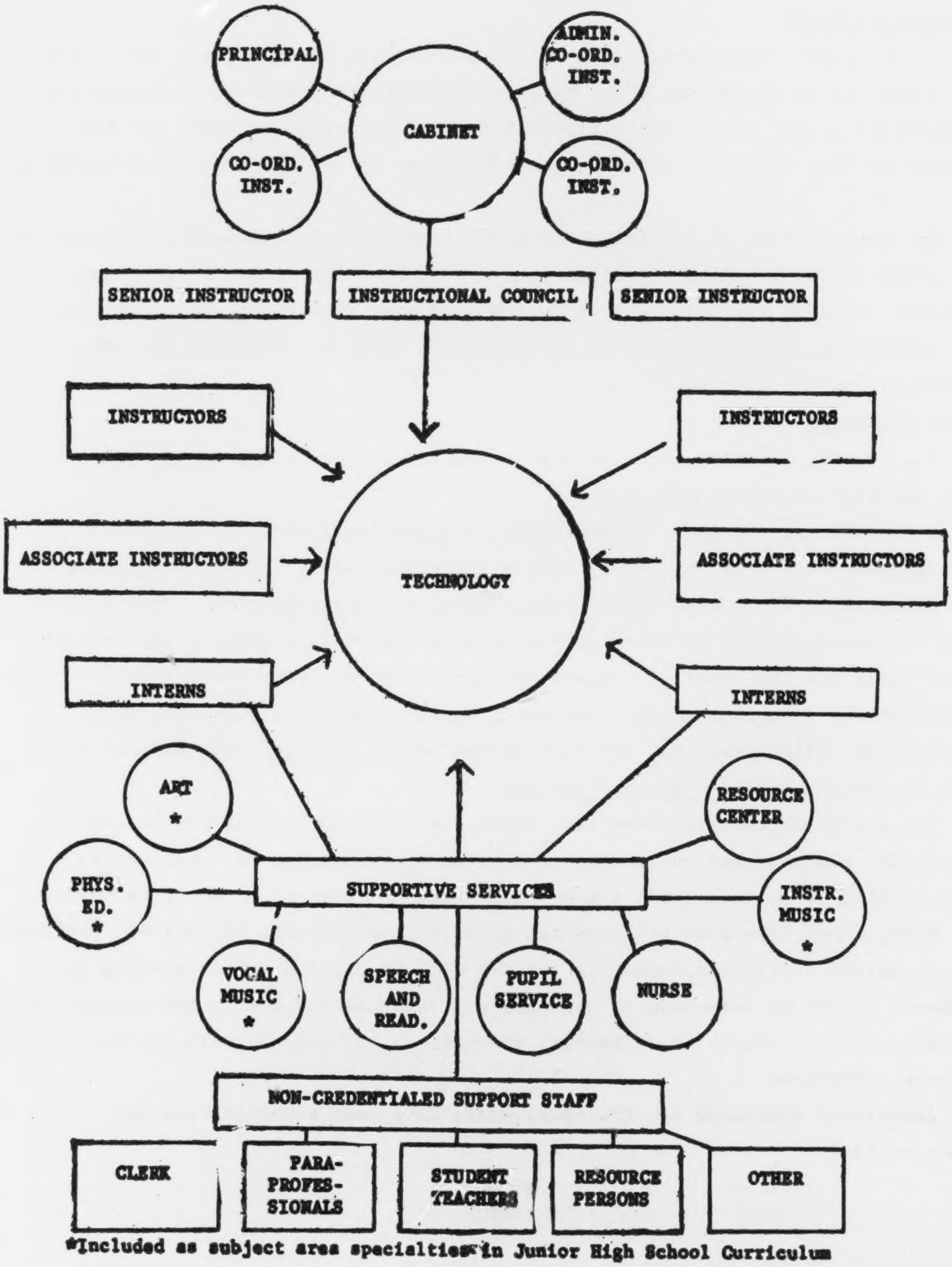
Each of the classifications is described in the appendix and the number of persons in each category for each school may be found there also.

Care was taken to consider the following in defining the job categories:

the task to be assigned (large group, small group, individual instruction)
responsibility for preparation of materials
special competencies required
preparation and developmental stage of the individual employee
length of the work day or work year
creativeness
talent
attitude
responsibility for diagnosis of learning problems
responsibility for prescribing materials and techniques of instruction

The model which appears on the following page shows in visual form the relationships among the various job classifications in the Kansas City Plan.

DIFFERENTIATED STAFF
(KANSAS CITY, MO. MODEL)


PRINCIPAL
ADMIN. CO-ORD. INST.
CABINET
CO-ORD. INST.
CO-ORD. INST.
SENIOR INSTRUCTOR
INSTRUCTIONAL COUNCIL
SENIOR INSTRUCTOR
INSTRUCTORS
INSTRUCTORS
ASSOCIATE INSTRUCTORS
TECHNOLOGY
ASSOCIATE INSTRUCTORS
INTERNS
INTERNS
ART *
RESOURCE CENTER
PHYS. ED. *
SUPPORTIVE SERVICES
INSTR. MUSIC *
VOCAL MUSIC *
SPEECH AND READ.
PUPIL SERVICE
NURSE
NON-CREDENTIALED SUPPORT STAFF
CLERK
PARA-PROFES-SIONALS
STUDENT TEACHERS
RESOURCE PERSONS
OTHER

*Included as subject area specialties in Junior High School Curriculum

Selection of Staff

In early May, descriptions of the classifications of roles were distributed to all schools in the Kansas City, Missouri District as well as to colleges and universities in the area. Any interested teacher was asked to apply for the position he felt best described his qualifications in the differentiated staffing plan.

The applications of the individuals who applied were reviewed by a committee consisting of the building principal, the director of elementary or secondary education, subject area consultants, and a personnel department representative. Each person was judged in terms of the degree to which he fulfilled the job specifications for that position.

Summer Workshops

The persons selected were involved in in-service workshops designed to prepare for a new kind of school operation.

The workshops consisted of two weeks of intensive orientation to a differentiated staffing philosophy. Each individual was briefed on his or her role in the plan as adopted by the Kansas City, Missouri District. Time was set aside for participation in the workshop of consultants from NCTEPS, the Central Office staff and the local principals and ample time was provided for staff discussion and decision making. The staff worked in small groups developing philosophies, objectives, and programs of the school in which they were to serve.

Plans for Continuing In-Service Education

The staffs of these schools have organized their daily programs to include an hour for planning and evaluation of area needs. Outcomes of these daily sessions will determine agenda items for subsequent sessions on specific topics.

Consultants from area colleges and universities, persons of national prominence, central office staff, and community leaders will be utilized in developing an awareness of and an extension of programs and roles as defined by the objectives of this project. Travel to workshops, conventions and schools with similar programs has been authorized.

Additional workshops for the total staff have been scheduled for the summer of 1969.

Evaluation

The two-year experimental program of differentiated staffing will be evaluated based on the accomplishments of the specific objectives stated earlier. The objectives will be continuously evaluated by the staff through daily planning sessions which have been built into the organizational structure.

In addition to the internal staff evaluation, an advisory committee composed of the Superintendent of Schools, representatives of the Instructional Division, Personnel Department, Extended Services, Research Department, and the Instructional Council of the local school will evaluate the program in its relationship to the total school district's objectives.

An outside team will be engaged to develop an evaluation plan; to formulate procedures; to prepare necessary instruments; to implement the plan; and to prepare preliminary and final evaluation reports. On the basis of this information, the future of this particular project on differentiated staffing can be determined.

The key questions will relate to pupils. Are the boys and girls in this school having a better educational experience than they did before? Is attendance better? Along with these questions, we will want to consider whether or not we have been able to attract and hold superior teachers in these schools, has the induction and orientation of new teachers been more effective, and whether or not teacher growth is more observable with this new staffing pattern.

Look Into the Future

This is one plan for a new kind of staffing pattern. Undoubtedly, considerable modification will be required during the implementation. It is not easy to cast off old ideas about staffing or the roles teachers should assume in a building. Refinement is needed in the differentiation between the levels of job classifications as defined. It is hoped that the total staff of these two buildings - in conjunction with the central office staff - can discover new and more effective ways of using professional talent to create a better education for our boys and girls.

Mary Harmon Weeks Elementary School

Staffing By Grade Level and Numbers of Personnel

Admin. Sec.

Principal

Attend. Clerk

Coord. Instr. Pri.

Admin. Coord. Instr.

Coord. Instr. Intermed.

	Kg.	E.P.	M.P.	L.P.	4th	5th	6th	Number
								2
Sen. Inst.	Team Leader 1	Team Leader 1	Team Leader 1	Team Leader 1	Team Leader 1	Team Leader 1	Team Leader 1	7
Inst.	1	2	2	1	2	2	1	11
Assoc. Inst.	1	0	1	1	0	0	1	4
Intern	0	1	0	1	1	1	0	4
Student Tchr.	1	1	1	2	1	1	1	8
Para Prof.	1	1	1	2	1	1	1	8
No. Pupils	147	138	146	137	140	128	121	

Special Education MR

Primary	Intermediate	Upper
1	1	1

Librarian	Pupil Serv. Wk.	Nurse	Art	Voc. Music	Phys. Ed.	Speech-Rdg.
1	1	1	1	1	1	1

Libr. Clerk	Instr. Mus.
1	1

MARY HARMON WEEKS ELEMENTARY SCHOOL

	Coord. Instr.	Senior Instr.	Instructor	Assoc. Instr.	Intern
Kdg.		1	1	1	
Early Pri.	1	1	2	2	2
Mid. Pri.		1	2		
Late Pri.		1	1		
Grade 4	1	1	2		2
Grade 5		1	2	1	
Grade 6		1	1		
	2	7	11	4	4

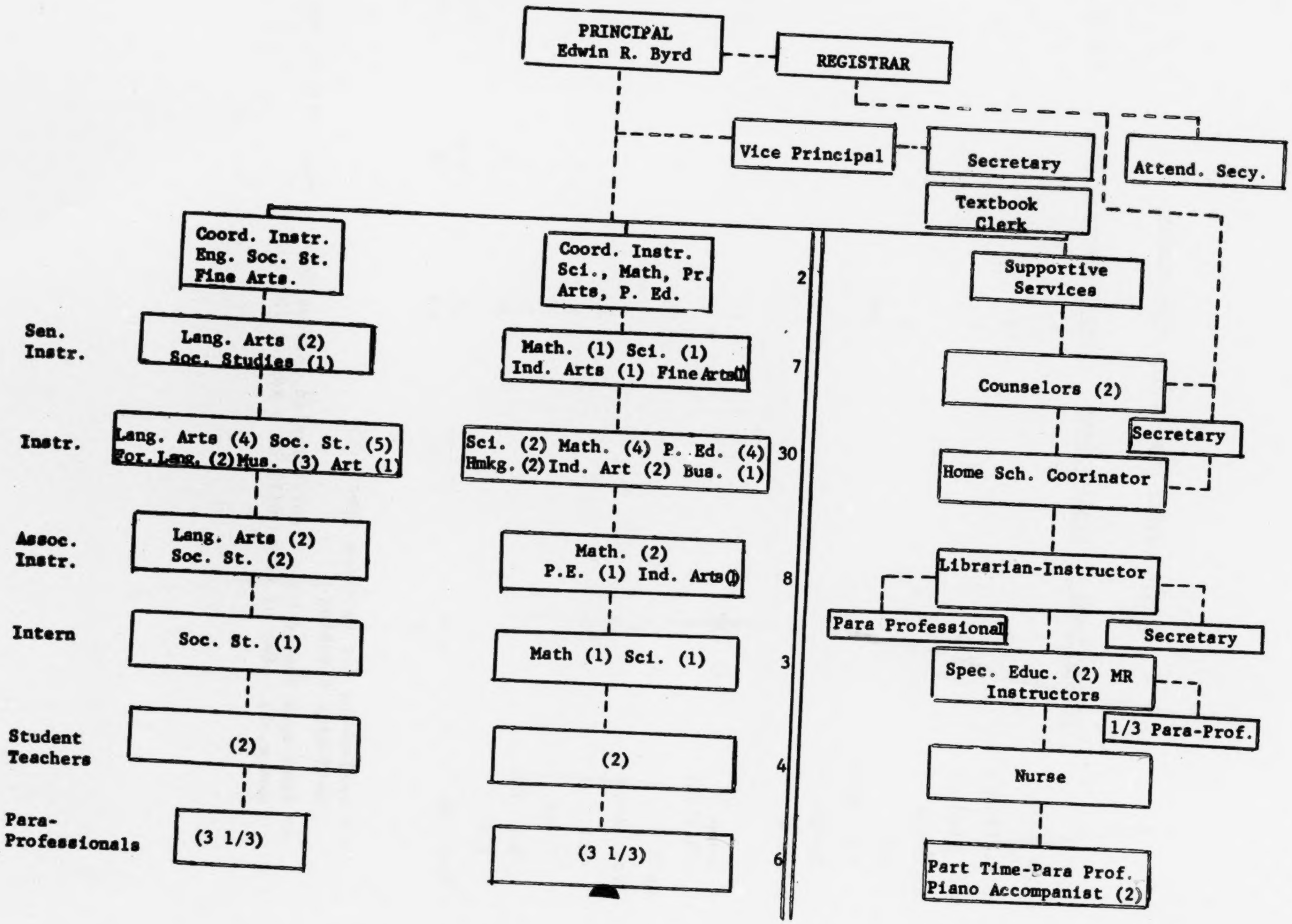
PUBLIC SCHOOLS, KANSAS CITY, MISSOURI

COMPARATIVE ANALYSIS BETWEEN MARY HARMON WEEKS ELEMENTARY SCHOOL AND A TRADITIONAL ELEMENTARY SCHOOL OF COMPARABLE SIZE

		WEEKS			TRADITIONAL
Administration					
Principal	$15,400			$14,350	
Adm. Coor	12,155			9,340	
Total		$27,555			$23,690
Staff					
2 Coor. Inst.	24,310				
7 Sen. Inst.	64,449				
11 Inst.	92,070		(31)	259,470	
4 Asso. Inst.	15,600				
4 Interns	16,000				
8 Student Teachers					
1 Voc. Music	8,370		(1/5)	1,674	
1 P.E.	8,370		(2/5)	3,348	
1 Art	8,370		(1/6)	1,395	
1 Sp. & Rdg.	8,370		(2/5)	3,348	
1 Librarian	8,370			8,370	
1 HSC-PSWC	8,370		(1/10)	837	
1 Pro. Nurse	8,370			5,022	
1 Inst. Music	2,092			5,092	
1 Ad. Sec.	4,000			4,000	
1 At. Clerk	3,467			1,949	
1 Lib. Clerk	3,353				
8 Teachers' Aides	22,876			1,080	
		$306,807			$291,585
		334,362			315,275
	Difference	$19,087			

5/1/68

DIFFERENTIATED STAFF ORGANIZATION FOR MARTIN LUTHER KING JUNIOR HIGH SCHOOL


PRINCIPAL
Edwin R. Byrd
REGISTRAR
Vice Principal
Secretary
Attend. Secy.
Textbook Clerk
Coord. Instr. Eng. Soc. St. Fine Arts.
Coord. Instr. Sci., Math, Pr. Arts, P. Ed.
Supportive Services
Sen. Instr.
Lang. Arts (2) Soc. Studies (1)
Math. (1) Sci. (1) Ind. Arts (1) Fine Arts(1)
2
7
Counselors (2)
Secretary
Instr.
Lang. Arts (4) Soc. St. (5) For. Lang. (2) Mus. (3) Art (1)
Sci. (2) Math. (4) P. Ed. (4) Hmkg. (2) Ind. Art (2) Bus. (1)
30
Home Sch. Coorinator
Assoc. Instr.
Lang. Arts (2) Soc. St. (2)
Math. (2) P.E. (1) Ind. Arts(1)
8
Librarian-Instructor
Para Professional
Secretary
Intern
Soc. St. (1)
Math (1) Sci. (1)
3
Spec. Educ. (2) MR Instructors
1/3 Para-Prof.
Student Teachers
(2)
(2)
4
Nurse
Para-Professionals
(3 1/3)
(3 1/3)
6
Part Time-Para Prof. Piano Accompanist (2)

MARTIN LUTHER KING JUNIOR HIGH SCHOOL

	Coord. Instr.	Senior Instr.	Instr.	Assoc. Instr.	Intern
Lang. Arts inc.		2	4	2	
(For. Lang.)			2		
Soc. Studies	(1/2)*	1	5	2	1
Fine Arts	1	1**			
Art			2		
Voc. Music			2**		
Instr. "			1		
Library			1		
Science (Health)	(1/2)*	1	2		1
Math.		1	4	2	1
Prac. Arts		1			
I.A.	1		2		
H. Ec.			2	1	
Bus. Ed.			1		
P.E.			4	1	
Spec. Ed.			2		
	2	7	33	8	3

* Preference for teaching specialty.
Half-time teaching.

** Fine arts should have 5 certificated persons (art-2, voc. music-1, instru. music.-2). One of these will be a senior instructor.

PUBLIC SCHOOLS, KANSAS CITY, MISSOURI

Comparative Analysis Between Martin Luther King Junior High School and a Traditional Junior High School of Comparable Size

	Differentiated Staff			Traditional	
Administration:					
Principal	$ 15,400			$ 15,400	
Vice Principal	13,475			13,475	
Total		$ 28,875			$ 28,875
Instruction:					
2 Coordinating Instr.	$ 24,310				
7 Senior Instructors @ $9,200	64,400				
31 Instructors (Incl. Librarian)	267,840		(48)	$401,760	
8 Assoc. Instructors	31,200				
2 Special Education Instructors	16,740			16,740	
Total		$404,470			$418,500
Certificated Serv.:					
3 Interns	$ 12,000.00				
8 Teacher Aides	22,874.00				
2 Counselors	21,263.50		(2)	$ 21,263.50	
1 Nurse	8,370.00			8,370.00	
1 Home Sch. Coordinator	8,370.00		(4/5)	6,696.00	
2 Accompanists	4,845.00			4,845.00	
Total		$77,722.50			$49,544.50
Non-Certificated:					
1 Library Clerk	$ 3,530				
3 Secretaries	11,680			$ 11,680	
1 Registrar	5,088			5,088	
1 Textbook Clerk	3,650			3,650	
Total		$ 23,948			$ 20,418
GRAND TOTAL		$535,015.50			$517,337.50
Difference		$ 17,678.00			

Appendix A

Coordinating Instructor

Job Description:

- Participates in the teaching process and teaches demonstration classes
- Coordinates the activities with a broad segment of the curriculum
- Evaluates the total program from this segment of the curriculum and suggests a course of action
- Supervises the ordering and distribution of supplies, materials, and equipment
- Has responsibility in assessing community needs
- Investigates and initiates curriculum innovations
- Evaluates and selects new curricular materials
- Is responsible to principal
- Makes decisions relative to the segment of the instructional program

Personal and Professional Qualifications:

- Well versed in action research techniques
- Knowledgeable in the field of supervision and curriculum development
- Skillful in human relations
- Committed to teaching as a career
- Able in evaluating and implementing new curricula and innovative practices in education
- Minimum of Master's degree in elementary or secondary education, as appropriate
- Has had successful teaching experience
- Superior knowledge in a subject field
- Demonstrated organizational ability

Certification:

- Missouri state certificate in elementary education or subject field

Salary:

- Placement on the Coordinating Instructor's salary schedule

Time:

- Understands that leadership responsibilities will require time beyond the usual work day (after school, evenings, week-ends)
- Minimum day 8:00 to 4:30
- Work 44 weeks per year

Senior Instructor

Job Description:

Serves as a team leader
Participates on the team as a full-time teacher
Is a member of the instructional council for the school
Diagnoses and prescribes for the needs of the individual children in his team
Supervises training of student teachers
* Exerts leadership in a subject field
Plans and schedules daily and long range activities
Is responsible to the Coordinating Instructor

Personal and Professional Qualifications:

Ability to lead members of a team
Interest in and willingness to share and try innovative experiences
Demonstrates a knowledge of the total school curriculum
* Major preparation in a subject field
Minimum of a bachelor's degree in education plus acceptable graduate work
Demonstrated successful classroom teaching experience

Certification:

Missouri state certificate in elementary education or subject area

Salary:

Placement on the Senior Instructor's schedule

Time:

Work day is 8:00 to 4:30
Works 40 weeks per year

* Junior High School

Instructor

Job Description:

- Participates on team as a full-time teacher
- Works with individuals and small groups in enrichment and developmental activities
- Responsible for large group presentations in his field of specialization
- Takes part in innovational activities
- Aids pupils in selecting adequate materials
- Follows plans as scheduled
- Is responsible to the Senior Instructor of his team

Personal and Professional Qualifications:

- Willingness to participate in a program of on-going in-service educational activities
- Minimum of a bachelor's degree in elementary education
- Demonstrated successful teaching and/or student teaching experience
- Interested in and willingness to try innovative experiences

Certification:

- Missouri state certificate in elementary education or subject area

Salary:

- Placement on teachers' salary schedule as determined by the individual's present qualifications

Time:

- Follows schedule of regular teaching day as defined in the Administrative Code. Minimum day 8:00 to 3:30
- Works 40 weeks per year

Associate Instructor

Job Description:

Part-time teacher
Participates in teaching as assigned by the Senior Instructor
Uses plans and schedules developed by the team
Responsible to the Senior Instructor

Personal and Professional Qualifications:

B.A. Degree

Certification:

Missouri state certificate in elementary education or provisional certificate

Salary:

Placement on salary schedule of Associate Teacher

Time:

Five and one-half hour school day
Work 40 weeks per year

Student Teacher

Job Description:

Follows activities as determined by the college or university student teaching policy
Participates in observing and teaching activities as prescribed by the Senior Instructor
Is responsible to the assigned Senior Instructor

Personal and Professional Qualifications:

Senior college or graduate student participating in student teaching
Be working toward a certificate in teaching
Willingness to participate in a program of in-service educational activities

Certification:

None

Salary:

Not applicable for student teachers

Time:

Follows work-day schedule as prescribed by college or university advisor

Intern

Job Description:

Is a full-time intern for a semester
Participates in teaching activities as prescribed by the Coordinating Instructor
Follows the course of action as described by his university or college advisor
Contributes to the teaching team in a field or fields of instruction
Is responsible to the Coordinating Instructor

Personal and Professional Qualifications:

Graduate student intern
Be working toward a certificate in teaching
Willingness to participate in a program of on-going in-service educational activities

Certification:

Internship status with a college or university

Salary:

$2,000 per semester

Time:

Follows schedule of regular teaching day as defined in the Administrative Code

Paraprofessional (Teacher Aide)

Job Description:

- Full-time or part-time member of the staff
- Does clerical duties as assigned by Instructors
- Supervises movement of children
- Takes daily attendance
- Prepares instructional materials
- Prepares orders for instructional materials and supplies
- Sets up and operates machines as required
- Is responsible to Coordinating Instructor, Senior Instructor, and Instructors as assigned
- Follows work-day time schedule which varies according to need

Educational Requirements:

High school diploma (some college work desirable)

Personal Qualifications:

- Relates positively to children
- Willingness to participate in a program of on-going, in-service educational activities
- Demonstrates acceptable oral speech patterns

Certification:

None

Salary:

Placement on salary schedule for teacher aides

OTHER MATERIALS OF INTEREST

Florida Department of Education, Differentiated Staffing (Technology in Education), Unpublished, 8 pp.

Temple City Unified School District, System Plan for Development of Differentiated Staffing, Unpublished, January, 1968, 12 pp.

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PROPOSED UTAH STATE PLAN FOR DIFFERENTIATED STAFFING

A PROPOSED FRAMEWORK FOR DEVELOPING A NEW INSTRUCTIONAL SYSTEM

I. SYSTEMS THEORY AND THE INSTRUCTIONAL SYSTEM OF PUBLIC EDUCATION

A. EDUCATION AS A SYSTEM

At a conference on prospective changes in society and their implications for education, held in Salt Lake City in October of 1966, Dr. R. L. Johns, Chairman of the Department of Education, University of Florida, described social systems and educational organizations in some detail. Since his paper presents this complex concept very clearly it is quoted extensively below as an introduction to the discussion that will follow.

> "During the past fifteen years, behavioral scientists have developed some theoretical concepts which are quite helpful in assisting a state to evaluate its organizational arrangements and operational procedures for public education. One of the most useful of these concepts is general systems theory. Systems theory provides an important linkage among all the sciences. General systems theorists believe that it is possible to represent all forms of animate and inanimate matter as systems; that in all forms from atomic particles through atoms, molecules, crystals, viruses, cells, organs, individuals, groups, societies, planets, solar systems, even the galaxies, may be regarded as systems.
>
> "The school system is a complex social system, comprised of an aggregation of sub-systems and supra-systems interacting with each other and also with numerous other social systems in the total society. Our society can be described as a complex of social systems in interaction. How can we understand these complex inter-relationships and how should we deal with them? Fortunately, systems theory throws some light on this problem.
>
> "Every social system, if it survives, must come to terms with its environment. That is, it must exchange matter, information or service with the components of its environment to the extent necessary to meet the needs both of the environment and of the system. That is, the social system must meet the needs of its environment if the environment supports it. How does the social system know that it is meeting the

needs of its environment? It gains that information through what behavioral scientists call 'feedback.' Lonsdale defines feedback as follows:

> 'As applied to organizations, feedback is the process through which the organization learns: It is the input from the environment to the system telling it how it is doing as a result of its output to the environment.

"If a system fails to learn from its environment, it will eventually fail to survive or forces in the environment will make changes in the system. On the other hand, the components of the environment cannot provide the school system with intelligent feedback unless the output-input of the system includes an appropriate interchange of information.

"These are rapidly changing times and educational social systems are receiving more feedback from the environment than ever before. Local school systems, state departments of education, and colleges and universities are receiving numerous urgent and valid signals from their environments calling for change.

"How does a state department of education, or a higher institution of learning, or a local school system, react when it receives criticism? Behavioral scientists have noted a number of reactions from social systems that have been disturbed by such feedback as a criticism. The social system may employ a number of alternate strategies in order to restore its equilibrium after a disturbance. Not infrequently a social system reacts as follows when it receives criticism: first, it ignores it; second, it denies it; and third, it attacks the source of the criticism.

"Thus it is seen the problem of establishing and maintaining educational organizations that are functional is not a simple one. The social system must change in order to survive in its environment. But the system cannot adjust to an unlimited amount of change at one point in time. These times, which require a rate of change greater than ever before, present an unparalleled challenge to the educational administrator to provide leadership for making desirable innovations and at the same time maintain a dynamic equilibrium."

B. CRITIQUE OF THE INSTRUCTION SYSTEM

The foregoing discussion of systems theory by Johns should lead to a critical look at the instructional system now in existence in our schools. If we can learn to look at the totality of our teaching-learning effort through the eyes of systems theorists, perhaps we can design a more sophisticated and effective system that will gain more for the dollars and efforts we expend. This, at least, is the theorem of this paper.

DISCUSSION OF THE CURRENT INSTRUCTIONAL SYSTEM

American public education has devised an instructional system that is quite simple. It has been effective in meeting many of the educational needs of our people for a number of decades. Changes and modifications have been made but the basic framework for use of the teaching staff, physical facilities, and instructional materials has remained essentially the same.

The current instructional system is comprised of a physical plant containing classrooms with supporting laboratories, libraries, shops, and gymnasia. The design of the plant has been dictated by the function. The function has been governed by the basic instructional unit. The basic unit, in turn, has governed the system design.

The instructional unit is currently comprised of a teacher (with supporting personnel to be described later), a group of approximately thirty students, and a classroom of approximately 900 square feet (standard of 30 square feet per student) equipped with chalkboard, textbooks, and supplementary equipment and supplies.

This unit functions under the leadership of the teacher. The strengths and limitations of the teacher and the physical facilities and instructional supplies govern, to a great extent, the efficiency of each particular unit in the system. With these elements making up the basic unit, the quality of educational output varies from one classroom to another.

The predominate instructional system places almost the entire responsibility for high quality, productive learning experiences upon the individual teacher. The teacher is in charge of (and almost totally responsible for) all of the essential factors that nurture learning for thirty students for an entire school year. Students, then, must rely upon the good fortune (and the good management) of the school district to provide unusual individual teaching capability. This unusual capability demands a wide variety of talents in: (1) understanding the school curriculum, (2) mastery of teaching methods, (3) using and adapting a multiplicity of complex instructional media to provide variety and differentiation to meet the varying and different needs of students, (4) diagnosing learning blocks and difficulties and adapting techniques to such needs, and (5) teaching and tutoring small groups on an individual basis while, at the same time, using the time of all members of the unit as productively as possible.

Educators have doubted that any teacher can meet all of the above demands to a reasonable level of efficiency. Even the acquisition of knowledge of the subject matter on a level applicable to all learners in the unit is a great challenge. To also efficiently provide all the other outcomes of education above and beyond simple knowledge acquisition is a near impossibility for one teacher.

Subject matter specialization has led to secondary school and college departmentalized teaching where each teacher teaches in his field of strength and meets from five to seven groups of thirty students each during a school day scheduled into time period segments of about 50 minutes each. The departmentalized system results in one teacher functioning in a classroom unit. The difference is that each teacher teaches a separate subject to from 140 to 200 students in a school day rather than teaching all subjects in the curriculum in one classroom to thirty students.

Departmentalized teaching is somewhat impersonal. With about 160 students being taught by each teacher in each school day it is difficult to learn of and adapt to the individual needs and varying problems of each learner. Also, the situation is still predicated upon the need for a "super" teacher who can be many things to each and every student.

C. APPENDAGES. . . . THE SUPPLEMENTARY PROFESSIONAL STAFF

The classroom unit system of teaching demands more than most teachers can produce. This is so in the departmentalized unit where class groups change every fifty minutes. It is also true in the self-contained classroom situation typical in the elementary school.

Because of these apparent demands for an unusually capable person in each unit in the system and because of the understandable limitations that many teachers have in measuring up to these demands, the classroom unit system of teaching has been supplemented with non-teaching professional personnel. These members of the school system's instructional team have been employed to provide support in plugging the more obvious gaps in the over-all efficiency in the system.

Specialists in educational diagnosis and counseling attempt to fill in for the "impersonal-ness" of departmentalized instruction of the masses. The school counselor keeps a record folder on each student for use of teachers. Test results and the complete educational history of each learner are kept in readiness for study and appraisal. Students are scheduled into the instructional system as a result of the expert knowledge the school counselor can bring to bear upon the study of individual needs. The counselor tries to see students as individuals and meet their needs as separate persons.

Remedial reading instruction is another example of supplemental effort to support the regular classroom unit system. The teaching of reading, for example, has met the needs of great numbers in past years. The exceptions stand out, however. We have non-reader dropouts. We have significant numbers of poor readers not equipped to move up the educational ladder. These are failures of our present system where too much has been demanded of the limited capabilities of teachers to meet the individual needs of all in a group teaching system in the basic classroom unit. We have sought to correct the mistakes and weaknesses of the basic system by establishing a sub-system of remedial teaching.

We also have employed specialists to teach the subjects requiring special talents and insights. Music and art are subject area examples.

The supervisors, counselors, librarians, subject area specialists, and principals all function in the present system. They have been added to supplement the efforts of teachers functioning in the basic classroom unit because of the inadequacies of the system we have used for so many years. These non-teaching and supplementary teaching personnel are expensive. They have evolved as sub-systems of the basic system out of necessity and concern for meeting the needs of all students.

As teachers deal with the frustrations of the demands of working in the basic classroom unit system, pressure emerges to modify the size of the unit. We are told that quality education will come when we reduce class size from thirty to fifteen. Teachers must also have time to study, plan, and prepare for teaching. It is a fact that many public school teachers suffer from suffocation of student numbers demanding attention every period of the school day. It is hard to be a careful, thoughtful teacher when the weight of numbers constantly frustrate creativity.

D. TEACHING STRATEGY IN THE SYSTEM

Teaching on the secondary school and college level is comprised mostly of lecturing on the part of the teacher and listening on the part of the student. Class discussion, panels, and other variations occur, but the lecture remains as the chief approach to teaching in the current system. There is little time to individualize and to adapt to varied needs during a fifty minute period. This is emphatically true when a teacher deals with six or seven consecutive groups in a typical school day. For this reason lectures are prepared and repeated to the various sections of the same subject taught by the teacher functioning in the departmentalized system.

The school program clock begins and ends the lecture regardless of the interest level and possible optimum teaching moment that should be continued. The program clock, the lecture, and the rigid classroom unit are administratively convenient. Management problems are great even in this simple system. The complexity of a large secondary school makes the rigidity of the system administratively desirable. Tradition helps to maintain it.

Lectures are more effective if they have the added punch of certain means of illustrating key concepts. This would ideally require intensive preparation of various kinds of audio-visual aids. Illustrated lectures have all the obvious qualities of a rich presentation that enlarges upon the limitations of the teacher's voice, but such are costly in terms of time and resources expended.

Under the present system we therefore find little time for the carefully prepared illustrated lecture. Time and the weight of numbers work against us. We therefore lecture by voice with a minimum of illustration. Students are often passive observers in the classroom unit system. They sit as note taking spectators to the lecture phenomenon that pervades the scene before them. Educators acknowledge that there is too much passivity on the part of the learner. He must be active, and must be responding to the situation if he is to learn.

E. PRESSURES FOR COST-BENEFIT ANALYSIS OF THE PRESENT BASIC INSTRUCTIONAL SYSTEM

The system described in the foregoing pages of this paper has been at least defensibly effective over the years. It is the basic structure for American public education today. It has been modified from time to time to meet the changing demands of great numbers of students attending educational institutions for increased periods of years.

The system demands added dollars as student numbers increase. As teachers justifiably demand increased salaries and decreased teaching loads the costs of education multiply. Taxpayer loads keep going up to meet quality and quantity demands. It is hard to justify decreased teacher loads because of increased costs and questionable return in terms of improved quality. The research fails to prove conclusively that achievement of students increases with decreased pupil-teacher ratios. In fact, some research would tend to refute this thesis.

Many authorities believe that teaching strategy fails to change when teachers accustomed to teaching thirty students are assigned to classrooms with 15 to 18 students. This phenomenon has been observed recently where Title I projects under ESEA have provided lower ratios. Most teachers continue the long established group teaching practice, and the results are therefore far from impressive.

As we increase teacher salaries under the present instructional system framework, we have little hope of offering dramatic increases in the output commensurate with the increases in the dollar input. As a result of the success of cost benefit analysis techniques used in business and industry, we face demands to guarantee more output when we demand more dollar input. The current instructional system cannot respond to this demand. It is rigid and costly. It ties teachers to the classroom group treadmill. It does not lend itself to creative adaptation to feedback calling for change. What is needed is a totally different basic instructional system.

F. INNOVATIONS RESTRICTED BY A RIGID SYSTEM

In recent years we have heard and read much about innovation and experimentation in education. Instructional television has been introduced into the present basic instructional system. The basic instructional unit of the classroom system and the teacher has prevailed with ETV as an appendage or supplement to the system.

Exciting new approaches to organizing subject around some basic learning theory has resulted in the introduction of programmed learning and teaching machines. A learning program is a body or unit of subject matter organized in such a manner as to make it possible for the subject matter to teach itself to the learner. The level of sophistication in writing effective programmed learning units is gradually increasing. It appears that we have succeeded in organizing subject matter so that it does have at least some limited value in successfully teaching itself to the learner. We have, however, introduced programmed learning as another innovation tied to the basic classroom unit system.

Audio-visual aids such as audio tapes, small video tape units, records, filmstrips, motion picture films and many other devices and combinations of these devices have been invented and used in schools. These devices are available to the classroom teacher in the basic instructional unit system, but he cannot free himself from the daily pressure of student numbers and time schedules to prepare them for use in his teaching. He is tied to too much routine, too many schedules, and endless groups of thirty students constantly before him in his classroom situation.

The National Education Association has recognized this problem. It is encouraging to see this organization call for a supportive staff to serve under the direction of the teacher. Whether this should be done in the traditional classroom setting is, however, subject to question. (More attention to this appears elsewhere in this paper).

Computers are coming into the instructional picture. Information about students, test scoring, pupil error analysis, student class schedules, and many pupil personnel analysis and service functions can be facilitated with the computer. Subject matter is being programmed for student-computer interaction. The use of computers in the totality of education is almost limitless. As we look at the present basic classroom unit system we again bump into the circumstance of the heavily burdened teacher in a rigid classroom unit teaching situation. We must begin to wonder how the teacher can extend his talents and capabilities to the use of the computer in his classroom when he is already burdened beyond usual capacity.

Knowledgeable persons acquainted with the potential of computers claim that these machines will extend and add to man's intellectual power in a manner that may parallel the extension of man's muscle power through the use of work producing machines. This has enormous implication for education. Although we do not have the extent of computer involvement in education we can safely predict that teachers in future years will be using computers extensively in their day to day work.

Libraries supplement the textbooks in modern schools. Subject matter is expanding rapidly, and it requires endless effort to keep up with the growth in printed instructional materials. Educational offerings are enriched considerably by the resources of printed materials of all kinds found in the library. Library functions are being expanded to include comprehensive media centers.

Libraries and computers present the potential of dial access information systems where lectures, books, and special units of information are available through electronic storage and retrieval. Through use of computer actuated information systems we will soon have talking books and illustrated lectures on electro-magnetic tapes, discs, and in data cells. The possibilities are great and the potential is exciting. The rigid classroom unit system looms increasingly as an obstacle to full fruition of this potential since the system was not designed to accommodate the complexities implied.

These are feedback signals that call for the system to change. As Johns has indicated, we have been ignoring the signals. In some cases we have pretended to change but have not really done so. In others we have made adaptations to the present classroom unit system but have not really changed the system.

What is needed, as we think of the future demands and potential of education, (in this era of technology applied to problems of teaching and learning), is an entirely different instructional system. It seems safe to conclude that the basic classroom unit system - good as it has been in the past - must give way to a more flexible and sophisticated system of instruction.

Following is a proposed model of a new instructional system. It is a tentative proposal, but it is a beginning. The re-design of a totally new instructional system is an enormous task. We should not, however, shrink from at least a modest beginning just because the problems are complex. We don't have to change all of our schools at once, but we must respond to the ever increasing and strongly compelling indications that educational technology has outgrown our present instructional system. We should proceed with the assurance that the probabilities seem fairly high that even a crudely designed new system will surpass the one we have.

II. A NEW INSTRUCTIONAL SYSTEM FRAMEWORK

A. SCOPE OF THE PROBLEM

A new system should provide a teaching capability that will utilize more effectively the potential of teachers, programmed learning materials, modern textbooks and printed supplementary materials, the computer, instructional television (both broadcast and local unit video tape), films, tapes, records, and other audio-visual aids. The variable learning ability of students calls for utilization of instructional media with many components.

We need to re-deploy the funds expended for instructional personnel resources in education so that learning can be individualized to meet varied human needs and more optimally develop varied student potential. In order to do this, the instructional staff of a school must include a broader span of specialization in media utilization and also in educational diagnosis than presently exists. The teaching staff personnel structure must include more technicians, clerks, assistants and aides capable of bringing the potential of educational media technology directly in focus upon the individual learner. We should change the ratio of certificated teachers to students from 1 to 25 or 30 to 1 to 45 or 50. Staff dollars should be re-deployed to employ assistants to support the teacher in the new system.

The size of the student group must be flexible. The nature of the learning activity should determine the number of students involved. It may involve the use of a simple textbook or a sequence in a carefully prescribed programmed learning unit. It may involve a video taped lecture, in color, specially prepared to introduce broad new concepts in a new unit of study.

The problem, therefore, extends itself to physical plant and equipment capability. A key to this capability is an instructional media center.

The instructional media center will serve as the heart and nerve center of the plant. The computer will store information about each learner and maintain constant retrieval access to teachers. It will also be available to store information about thousands of types of learning units available on audio or video tape — or in programmed learning form — or in simple printed form. As research extends itself further the computer will be used in some direct learning interaction with the student as computer based instruction becomes a reality in our schools.

In establishing this system we should train instructional staff personnel — and especially professional teacher leaders — to utilize the potential of various physical components of the system. This will involve a change in staff structure and expertise.

B. STAFF STRUCTURE

The proposed new system will employ fewer professional teachers. The professional teacher-pupil ratio will be increased to possibly 45 to 50 students to one teacher. The staff salary monies will be re-deployed to add the needed technicians, clerks, assistants, tutors, and aides that will comprise the staff structure of the new instructional system. School counselors, psychologists, remedial teaching specialists, supervisors, and librarians will be utilized in a different manner. Staff dollars in these areas will also be redeployed.

The school will have a staff for the instructional materials center (which will supplant the library by housing all of the materials and equipment used in teaching). The staff of the instructional materials center will supplant the present counselor, librarian, remedial teacher, and supervisory personnel assigned to the school under the traditional pattern. The school will also have instructional unit staffs. These will replace the grade level teachers in the elementary school and the departmental staff in the secondary school. They will perform their duties in teams, functioning in instructional sub-centers clustered around the central instructional media center. Their activities will draw upon support of the personnel housed in the instructional media center. The total staff potential of the instructional units plus the school-wide staff potential of the instructional media center specialists will be brought to bear upon the learning process. This is the key to the proposed new system which holds the promise of more flexibility.

The potential of such a staff structure to provide a greatly enriched, multi-media program of instruction should greatly surpass the potential of a single teacher functioning in a separate, isolated classroom housing thirty children. The flexibility of staff deployment and the capability to utilize all of the potential of a more complex instructional materials and instructional machine technology will also greatly surpass the capability of individual teachers in the traditional setting. The new staff structure will be trained to effectively use computers, video tapes, other electronic teaching aids, and programmed learning units. This should truly individualize teaching and bring to greater fruition the abilities of a total instructional staff of broadly varying talents.

To attain these complex aims of staff comprehensiveness in utilizing highly sophisticated instructional media systems, orientation and training will be essential. Persons willing to part with tradition and think in terms that depart from the egg-crate classrooms and corridors will be essential in building the new system. Pilot programs must establish the new staff structure patterns. The new systems design can then be spread to additional school units.

C. A SAMPLE SCHOOL STAFF STRUCTURE

To illustrate further the possible staff structure and personnel dollar re-deployment, let us consider a middle grade school designed to teach third, fourth, fifth, and sixth grade pupils. The basic unit for instruction will be comprised of 90 students housed in a large, open instructional area next to the media center. The new instructional system would include four instructional staff units (one for each grade or age level). It would also include an instructional media center staff.

Duties of members of instructional unit staff:

a. Head Teacher - Leader and director of the work of the unit...conducts meetings of the staff where planning is done -- supervises all members of the unit and coordinates their work -- will require a very able person with organizational and leadership ability...salary should be high enough to attract ability and compensate for added responsibility.

b. Experienced Teacher - This person would provide professional teaching service to students under the direction of the master teacher. He would utilize the services of tutorial assistants and aides in individualizing instruction. Assistants and aides would perform duties assigned to them by professional teachers. The teachers would free themselves of most routine work not requiring skills and insights of a high professional level. The lecture type of teaching in groups of 30 or more would be very seldom done. Most learning would be in small tutorial groups of three to eight students and as individual students in self study or working with one adult staff member.

c. Tutorial Assistants or Intern Teachers - These persons should be para-professionals with at least two years of college training. They should be interested in becoming teachers. The positions may, in fact, be filled with teacher interns or college students working toward a degree in education. The positions may be filled with four half-time students or two full-time para-professionals depending upon availability of candidates.

These persons should provide a great amount of small group subject matter practice and drill activity to intermediate grade children working to master the rudiments of the basic tool subjects. They should, under the direction and assistance from the professional teachers, provide individual help to children who frequently have learning problems in group teaching situations.

d. The Volunteer Aides - Will serve on the staff out of motivation to contribute to their neighborhood school. Volunteer service to hospitals and neighborhood youth centers has resulted in a great deal of assistance to the public good. Many mothers endowed with a love for children and a desire to contribute to the cause of education of youth may be recruited to fill these posts. Personality characteristics that assure an attitude of service under the guidance of professionals will be important in recruiting these people. Some college background will be desirable, but intellectual ability to follow instructions and render teamwork assistance will be important.

A modest compensation for expenses in being away from home and in traveling to and from school should be provided.

The intent should be to reimburse for out-of-pocket daily costs and not to provide a salary.

The volunteer aides should correct papers, prepare teaching materials, respond to on-the-spot needs of youngsters, supervise playgrounds, hallways, and school lunch, check on children to lend assistance during study time, pass out materials, and serve as a personal assistant to the professional teachers. The services of these persons should be a great value to the total unit, but this will be so only if their potential is fully utilized by the teachers. Training and orientation will be crucial. They will need to understand the limitations as well as the potential of their work.

The school should honor and recognize publicly the persons who support education through volunteer service as aides to teachers. If this is properly done, reasonably capable talent can be recruited and a reservoir of applicants can be maintained. Orientation and training of volunteers aides will also be necessary if they are to function well in the system.

e. Clerk-Pupil Progress Accountant - This person will do clerical work for the unit. She will do the detailed accounting necessary in a system where individualized instruction encourages variable progress. She will also work with the person in charge of the computer input-output terminal located in the instructional materials center. The paper work of the unit will be computer assisted, and she will be the liaison person for the unit, updating progress data of individual students and retrieving from the computer system the information required by the professional staff.

D. COMMENTS ON STAFFING STRUCTURE FOR THE INSTRUCTIONAL UNIT

The number of professional teachers is reduced substantially from those required in the traditional system. The professional teacher-pupil ratio is therefore increased from 27 to 1 to 45 or 50 to 1. However, the number of adult members of the staff will be increased to provide the supporting services from the instructional media center. Thus, the new staffing structure will provide more personnel, or varying levels of ability, to make it possible to individualize the instruction for each one of the pupils in the unit.

The result should be the elimination of lectures and busy work for students in group teaching situations. Students should be more productively engaged in a personal involvement circumstance most of the time. The effort should be to keep the learner active - not passive - during every hour of the school day. The responsibility for learning should shift from the teacher (under the traditional system) to the learner. He will be the one engaged in programmed learning units, in small group discussion, and in tutorial type of activities. His constant, active involvement in learning should emerge from a more varied program of individualized teaching and learning.

The variability of the staff and the enriched materials and media environment should result in some release from the pressure of 30 students that constantly faces the teacher in today's system. The variability of staff should cause more attention to be drawn to learners with special needs. Extra tutoring can be provided either by a professional teacher or under the supervision and prescription of a professional teacher. Situations of non-response to learning stimulus should be much less frequent. Teachers will not be compelled to permit non-learning situations to be unattended because of the constant pressure of 30 students six hours each day with the total learning responsibility on one person's shoulders.

The new staffing structure is contingent upon effective volunteer aides supporting the professional teachers and the availability of effective tutorial assistants. Such assistance should be forthcoming if care is exercised in selection and if proper orientation is given to the role of these persons.

The staffing structure dramatically reduces the number of professional teachers. This should not concern members of the profession since demands for teachers are not being met at the present time. The great length of time required to develop a new instructional system (and cause it to become operative in significant numbers of schools) should provide further reassurance that this proposed re-design of the system will not result in teacher unemployment. When the teacher supply is greater increased preparation and periods of internship can also be required of new teachers entering the profession.

The taxpayer should welcome a new system that makes it possible for teachers to earn for themselves a very significant salary increase by being more effective in educational output without more total dollar input. If the system becomes increasingly effective with continued experience, the flexibility in using technology and staff should provide education with a potential to individualize teaching for each student and meet the demands of increasing student numbers. Teachers will be more productive in terms of numbers of students served, and this should make substantial salary increases possible.

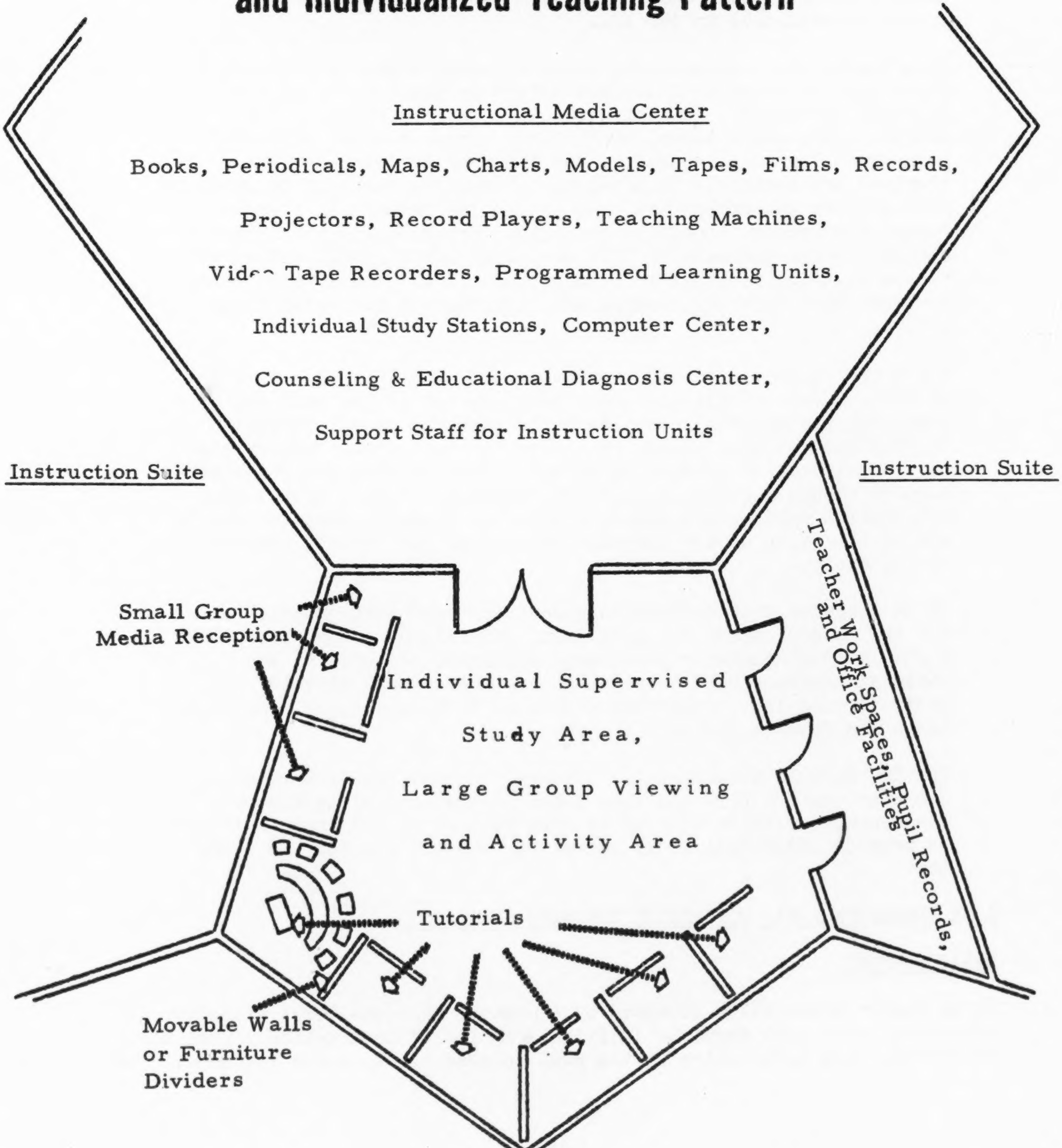
Much experimental and pilot study evidence will be needed to prove a theorem that educational productivity and dollar costs can be simultaneously increased in the former and held constant in the latter. Our hope lies in this and other system re-designs and not in perpetuating the present rigid and costly system that has difficulty adapting to demands or technology. Projections of dollar costs alone should give great impetus to developing a more efficient system.

E. THE INSTRUCTIONAL MATERIALS CENTER AND THE PHYSICAL PLANT

As previously stated, the proposed new instructional system is predicated on the availability of programmed learning units, video tapes, films, audio tapes, books, printed enrichment materials, and the coordination of the complexity of materials, staff time, and pupil needs through use of computers located in a central place but with remote terminals in the IMC of each school. Effective use of instructional materials systems packages in the instructional units will be contingent upon the staff and logistical support of the IMC. The new instructional system will be housed in a school plant where the IMC is the heart of the school and the instructional units (replacing square classrooms with rigid walls) will be "wrapped" around the IMC. Spaces will have to be variable in size to accommodate flexibility required by the system. Thus, students and staff will flow from instructional units into the IMC and materials and machines will flow from the IMC to the instructional units. The mission of the IMC is to provide materials, equipment, and all the tools of learning to the instructional units and to provide computer assistance and back up to the units. (See sketch for IMC - instructional unit space relationship).

It is anticipated that instructional systems packages designed on the State and school district level will be placed in the IMC of each school. Training unit staff members in the development and use of the systems packages will be part of the complex process of establishing a new instructional system. Video and audio tapes by

Possible Space Layout for Instructional System Facility to Utilize Teaching Systems Packages, Instructional Team Staff Pattern, and Individualized Teaching Pattern


Instructional Media Center
Books, Periodicals, Maps, Charts, Models, Tapes, Films, Records,
Projectors, Record Players, Teaching Machines,
Video Tape Recorders, Programmed Learning Units,
Individual Study Stations, Computer Center,
Counseling & Educational Diagnosis Center,
Support Staff for Instruction Units
Instruction Suite
Instruction Suite
Teacher Work Spaces, Pupil Records, and Office Facilities
Small Group Media Reception
Individual Supervised Study Area,
Large Group Viewing and Activity Area
Tutorials
Movable Walls or Furniture Dividers

thousands should eventually be developed,for availability as part of the total resources of the IMC system. Programmed learning units varying in size and length from 50 to 5,000 frames should be stored in readiness in the IMC.

By bringing the instructional power of multi-media to teaching a given unit or segment of subject matter we can hope to gain in learning efficiency. (Teaching should be more effective, for example, when audio tapes, short video tapes, several different programmed learning sequences, and a number of printed illustrations are available to a teacher presenting concepts to students on objective and nominative case in English grammar.) A wide range of selection should be available through designing instructional systems packages of this sort that add richness and variety to the teaching strategy to be employed. This should be in sharp contrast with textbook reading and lecturing in the traditional setting.

The computer should extend the memory and intellectual capacity of the staff. Information about each learner in the unit and data about all the materials available for teaching on all levels and in each subject area should be stored in the computer memory and made available for instant retrieval. Test scoring and diagnostic support should also be provided by computer. Future dial access information systems and computer actuated learning programs should add to the value of the computer as a vital part of the new instructional system.

It is intended that dollars released from each instructional unit and the re-deployment of librarians, counselors, school psychologists, subject matter supervisors, assistant principals, and remedial teachers will provide the resources for a director and staff for the IMC. Expertise will need to be developed from experience and feed-back from the units.

The IMC will be a combination library, audio-visual laboratory, computer center, film and tape library, and counseling center. The center's mission will be to lend support to the unit staff and to provide individual study spaces for student viewing and studying.

SOME TENTATIVE IDEAS CONCERNING TEACHING STRATEGIES

BASIC PURPOSE

It is almost universally accepted by educators that the ideal situation in education is to have complete individualization of instruction. That has, of course, been prohibitive in the past because of the costs involved. That is why the traditional school situation assigns from twenty-five to thirty children to a separate classroom to receive instruction from one teacher. The staffing pattern and the availability of educational technology housed in a school plant that breaks with traditional classroom teaching design all make it possible for an instructional system to be developed that will facilitate more individualized teaching. The instruction, to be sure, will not be totally individualized but it will be infinitely more personal and more carefully geared to individual differences than has been so in the past.

Let us examine a possible teaching strategy utilizing the staff pattern suggested in this paper. This proposal would also use the basic instructional unit previously suggested. It would be housed in a large instructional suite immediately adjacent to an effectively functioning instructional media center.

STUDENT LEARNING ACTIVITIES

It is suggested that this new instructional system might begin through experimentation with three basic types of learning activities for students. These are: (1) tutoring, (2) lecturing, explaining and demonstrating, (3) and individual study. It is intended that practically none of the instruction will be offered students in groups of traditional classroom size. The instructional sub-group should usually vary in size from three to ten students.

Much concern is being expressed today about problems of student identity and de-personalization. The teaching strategy suggested would tend to draw the instructional staff closer to students as individuals. Tutorial groups of from three to ten learners would make this possible. Staff teamwork in directing individual study activities and in utilizing audio-visual technology in individualized and group information presentation will make it possible to more productively use the time of students while they are not participating in tutorial sessions.

The most important learning activity would take place in small groups of three to ten students receiving personalized tutoring from a professionally trained teacher. By limiting the size of the group to not more than ten, the contact with each learner will be quite personal so that the teacher can in fact adapt to individual needs as they are diagnosed from the close range of instruction on this intimate basis. This tutoring activity is the kind of instruction that has yielded dividends for years in the primary grade classroom. It has been the practice in primary grades in the past to establish small reading circle groups where the interaction between the teacher and the learner is very intimate and individualized. It is intended that most of the professional teacher's time in the new instructional system will be devoted to this type of tutoring activity.

The great advantage in this proposed system will be that manpower and educational technology will be available under the new system to keep the learning activities of students (not involved in tutoring sessions with professional teachers) more productively directed toward follow-up activity assigned by the professional teacher as an outgrowth of continuous daily interaction between the teacher and the learner.

The teaching activity will shift to individualized tutoring in small groups rather than lecturing and group teaching in the classroom. It is suggested that the professional teachers would be assisted by tutorial assistants. The tutorial assistant would be a para-professional or a teacher trainee-intern completing requirements for full teaching certification. The tutoring done by the tutorial assistants would be structured and supervised by the professional teacher. Theirs would be follow-up activities to small groups in providing added assistance preparatory to individualized study. This will provide the professional teacher with supporting follow-up activity without using valuable professional staff time for this type of sub-professional teaching activity.

INDIVIDUALIZED STUDY

It is anticipated that the new instructional system will provide more time for supervised individualized study and independent individualized study. Students will receive an assignment from the teacher that grows out of the tutoring sessions. Members of the instructional team will supervise groups of students as they work on these assignments in supervised study sessions. The students will also be provided an opportunity to do some studying on their own in the instructional media center.

The supervised study will provide opportunities for some structuring and for some assistance as children work on assignments. This will, of course, require coordination between the team member assigned to supervise the study activities that are to grow out of the tutoring sessions.

The independent study that will take place in the instructional materials center will provide opportunities for students to pursue special areas of interest on an enrichment and supplementary basis. The materials available to the staff in this center will focus attention on learning activities related to the age group and the specific instruction taking place in the various instruction units of the school. The amount of independent study time prescribed will vary with student sub-groups according to needs and capabilities to study independently.

Through the independent study and the supervised study activities students will be gaining more independence and responsibility for much of their educational growth and development. This should result in sound study habits and in selfreliance. Such activities, constantly followed up by tutoring sessions, should be highly productive if the right types of enrichment materials are made available.

LECTURING, EXPLAINING AND DEMONSTRATING

The current state of educational technology makes it possible for us to develop hundreds of small video tape clips, motion picture films, audio tapes, records, and other types of information conveying materials. By accumulating and developing a rich and varied array of these materials and by providing the technological means of making them almost immediately accessible to small groups of students, the viewing and listening activities can take the place of most of the teacher lectures that have been so prevalent in American education. The new staff pattern will make availability and immediate use possible. This will take place in listening and viewing centers with earphone sound control. (See sketch of proposed physical layout.)

Great care should be taken to have carefully prepared video tapes or 8 mm single concept films, for example, that will relate specifically to certain sub-units of instruction related to basic subject matter covered in the small group tutoring situations. If these are prepared with care they can be utilized hundreds of times as part of the total instructional system. With continued experience, the coordinated use of these and other means of communicating ideas and information should become increasingly effective.

Instead of using the teacher's voice before a traditional size group to introduce new units of learning activity (and to stimulate interest through orientation to sub-units of subject matter) it is anticipated that electronic projectors and video tape units will convey this information from pre-packaged systems. Their use will need to be carefully identified and limited to the total instructional plan. If they are well done they will exceed the capability of a teacher who lectures on a day to day basis in the traditional classroom. Each unit will have voice, music, and action capability that should attract and hold attention.

This type of learning activity has its limitations since the learner will not want to view and listen for endless periods of time. Such activity, with its limited value in the total learning situation, will be subordinated to the tutoring and individualized study work that will be going on in the total instructional process.

PROGRAMMED LEARNING AND SYSTEMS MATERIALS FOR INDIVIDUAL STUDY

Programmed learning units would also be provided from the instructional media center as part of the orientation and information acquisition activity. The use of programmed learning could also be classified under independent study activity. These units will convey information and can also provide goal directed practice and drill in an independent study situation. Programmed learning should have a place in the total instructional system and should be a vital part of the instructional materials system package. Through limited and wise use the advantages of programmed learning can be gained for the benefit of students. Only through recognition of limitations, however, will these advantages be gained without also bringing some disadvantages into the total learning picture. Like audio-visual learning activities endless use of programmed learning units will result in loss of interest and waste of student time if use as a means of instruction is not varied with other activities.

Single concept films and materials for individualized study and inquiry should be made a part of the new systems approach to teaching. Study time will be more productive if a multi-media, independent study system is planned, equipped and staffed.

SUMMARY

The instructional staff, and especially the professional teacher-leader, will need to be thoroughly familiar with the content of all the multi-media instructional sub-systems packages that will be conveyed electronically by programmed learning. and by conventional media to the students. The media specialists, the teacher aides, and the clerical personnel can carry out the work done in individualized study, in orientation, and in information acquisition activities if such is done under the immediate surveillance and supervision of professional teachers. This will require careful coordination. Efficiency should increase with experience and with continued practice.

The total instructional strategy will be based upon cooperative activity where tutoring, individualized study, and information acquisition from pre-packaged lectures are facilitated by the staff through use of multi-media and through use of team methods that are geared to small student groups in tutoring and discussion situations.

Student grouping will be flexible to accomodate continuous progress and to promote maximum learning to the unique and varied potential of each individual. The grouping structure should provide for frequent review of student progress. Re-grouping should therefore occur as often as individual educational needs may prescribe. Computer science schould assist the professional staff in this task.

The time of professional teachers will be directed toward the most highly productive part of the teaching and learning activity. This is, of course, the inter-action that goes on between the learner and a highly skilled teacher in a close personal learning situation. This will be facilitated in this type of instruction system to a much greater degree than has ever been possible in the traditional teaching situation. Achievement gains should be superior to what we have had in the past. Student failure and need for remedial work should be decreased dramatically. This may not occur until the new system is developed with all of the related materials having been carefully prepared and with the staff having sufficient experience and practice in a new situation to learn to master the techniques and strategies and to gain confidence and enthusiasm for them.

Schedules and routines would need to be established and many varied approaches to developing the new system would undoubtedly be tried and rejected for more promising activities. Only through continued and sustained effort over a period of time sufficient to develop staff expertise will the proposed new instructional system receive a fair trial. This may require a year of preliminary preparation and three to five years of trial use with ample opportunity for revisions, changes, and re-development of new results. The actual teaching strategy would have to be based on feedback gained from experience. The problem is to avoid denunciation of the new system before it has had time to become rooted into solid educational practice. At this point, a very careful and intensely analytical appraisal of the progress of students should be taken by impartial evaluation experts.

III. CONCLUSIONS

This paper has attempted to discuss the current instructional system and describe the reasons why it will become increasingly obsolete because of available technology and the failure of the present system to adapt to its effective use. By looking at the need for change from the perspective of systems theory, it is suggested that the entire teaching and learning program can be viewed more in its totality and less as single classroom components.

The specifics presented in this paper (as to staff, school plant, and media) were stated as a means of cummunicating a somewhat complex alternative to the present system. These specifics may not be the best, and modification in the proposed model would surely come after the benefits to more intensive study of other alternatives were attained. The writer does not claim the proposed new instructional system as his invention nor as even the theoretical best fitted for trial use. It was his intent, rather, to contrast the potential of a more open and flexible system with what we now have. Thoughtful criticism will surely add and delete to these proposals.

The chief consideration should be that our public school system - on both the public school and higher education level - should begin to more aggressively experiment with some drastic departures from the egg-crate classroom building and the rigid one teacher (or professor) and thirty student arrangement.

A theorem is a statement that is to be proven to be true. The writer's theorem is that our present instructional system is obsolete and that we can design a better one.

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PROPOSAL: INSTITUTE FOR NEW STAFF ORGANIZATION AND UTILIZATION

Needs

The proposal to be submitted by Beaverton School District #48 will be for a second year of funding to continue development of differentiated staffing started under the 1969-70 E.P.D.A. grant. The needs stated in the original proposal were:

1. To utilize educational personnel to perform tasks commensurate with their ability and interest.
2. To train personnel to perform tasks of varying degrees of difficulty commensurate with their ability and interest.
3. For prospective teachers to participate in clinical field experience early in preservice education.
4. To utilize a variety of educational personnel to improve communication with disadvantaged youth.
5. To train and utilize personnel from all available sources to serve in a variety of ways in the process of education.
6. To increase the variety of modes and points of entry into the teaching process.
7. To improve the development and retention of competent educational personnel by creating career patterns in teaching.
8. For a number of agencies to cooperatively develop preservice and inservice training programs for educational personnel.

Objectives

The objectives to be accomplished were:

1. Identify appropriate behavioral objectives for students.
2. Identify specific tasks which should be performed by educational personnel to help students meet the behavioral objectives.

3. Define teaching tasks as they relate to:
    a. teaching skills, knowledge and attitudes.
    b. utilizing procedural and organizational techniques for teaching.
    c. providing managerial leadership in allocating resources for teaching.
4. Correlate specific tasks with the competencies and interests of educational personnel.
5. Develop criteria and programs for the training and retraining of education personnel.
6. Develop criteria and programs for evaluating the results of differentiated staffing.

Summary of Current Project

A district-wide Differentiated Staffing Committee was formed to establish policy and guidelines. It is composed of twenty five members who were selected to represent various disciplines, grade levels, and attendance areas of the district. This committee will continue to function until the project has been implemented and evaluated.

The district-wide committee and the staff of the first pilot school held a series of work sessions prior to the close of the 1968-69 school year and are now involved in a five-week workshop. An additional two weeks of work are planned prior to January 1, 1970. In preparation for accomplishing the objectives, we held a one-week inter-personal relations and organizational development workshop directed by Dr. Fred Fosmire from the psychology department of the University of Oregon and a two-day exploration of peer and cross-age teaching directed by Dr. Herbert Thelen of the University of Chicago.

Utilizing the following procedures, we have completed the first step.

1. A questionnaire developed by the Oregon State Department of Education

was administered to all of the first pilot school students and staff, a random sample of students in other schools in the district, and a random sample of parents in the attendance area served by the first pilot school.

2. Personal interviews were held with a sampling of current students at a variety of grade levels; with drop-outs, terminal graduates, and graduates who went on to higher education; and with businessmen, business leaders, job foremen, and professional people.
3. Two half-day seminars with local and state-wide opinion leaders in industry, business, and state and federal government were held to address the question of what youth today and twenty years from now will need.

In addition to the needs assessment, we have also completed step two, the preparation of school-wide or global educational objectives. We have attempted to write these objectives to a first approximation of behavioral objectives. These objectives will be stated in more precise behavioral terms as they are implemented at the course level, but the first approximation is necessary to give direction to the over-all curriculum development. These behavioral objectives have been prepared in the cognitive, affective and psycho-motor domains wherever possible. They cover basic tool skills, learning process skills, and personal-social skills.

1. We are presently designing an instructional organization involving different levels and types of responsibility which will best satisfy the needs and accomplish the objectives. This organization may be the traditional department grade level organization, or an entirely new kind of instructional organization utilizing merged disciplines with some instructional focus other than the traditional.

2. We are completing an inventory of the human resources and skills necessary to augment the staffing pattern which results from the above.

We will use the time remaining until January 1, 1970, to write job descriptions based on the inventory of human resources. These job descriptions will than be used to design training programs for the current staff and recruit new staff for implementation of the first differentiated staffing model for the fall of 1970.

The second and third pilot schools have been identified and some preliminary training accomplished.

The second pilot school, Cooper Mountain School, occupied its new building in the fall of 1968. Students in grades 1 through 6 numbered 398 and the staff consisted of nineteen members.

In August of 1968, a one week workshop in interpersonal relations was held under the direction of Dr. Allen Spanjer. During that fall, a course in the use of Taba Strategies in teaching social studies was offered for the entire staff. Two members of the staff were appointed to the District Differentiated Staffing Committee.

Among the practices used during the 1968-69 year were: (1) peer teaching, (2) cross grade teaching, (3) cross grade grouping, (4) use of high school students, (5) team teaching, (6) individualized instruction, and (7) clinical supervision.

During the 1969-70 school year, plans call for organizing the staff around three teaching teams involving 450 students and 22 teachers. Each team will have a designated leader. Practices listed above will be continued with maximum effort toward improving their effectiveness. A workshop will be organized for training in writing objectives in behavioral terms. An increased use of student teachers while expanding their experience will be explored. One teacher has been assigned to work half-time in the Oregon Elementary School English Project under the direction of Dr. Albert Kitzhaber at the University of Oregon.

These plans for 1969-70 will be carried out to prepare the Cooper Mountain staff for the planning year 1970-71 as a Differentiated Staffing pilot school.

The third pilot school, Mountain View Junior High School, is a new school opening in the fall of 1969, which will begin with grades 7 and 8 and a student body of 400. This school is a feeder school for the Aloha High School.

In anticipation of this school's role in the overall plan for differentiated staffing, an in-service program directed toward interpersonal relations will be held the last week in August, 1969. One objective of this workshop will be directed toward viewing the task which lies ahead for this faculty regarding differentiated staffing. Two members of the faculty have been serving on the District Differentiated Staffing Committee for the past several months, and it will be part of their responsibility to present what has been accomplished in the differentiation of the Aloha High School staff and its ramifications.

Two days have been set aside for curriculum implementation. At this time, the needs assessment survey which was given during the summer of 1969 will be reviewed. This assessment will be used as a tool to evaluate present teaching practices. It will also be used to indicate how differentiated staffing can help us more effectively meet the educational needs of our community.

As the year progresses, the interviews conducted, speakers used, and objectives arrived at during the summer workshop with the Aloha High School faculty will be reviewed and incorporated in the design of the curriculum in the new school.

When models of differentiated staffing have been tested, we plan to implement them throughout our district. This assumes a measurable degree of success in our project.

The philosophy of differentiated staffing indicates to us that no staffing model will be permanent, that individualized learning and individualized instruction are vital, and that "the classroom" will have as little geographic limitation as possible. For example, in an educational park setting in the newly developed area of Rock Creek and McKay Creek where elements of community college, recreation district, county fair grounds and school district could become the "classroom." Personnel from all walks and activities of human affairs will be used in instruction.

Program Design for 1970-71

In order to implement the first pilot model for Aloha High School and plan the pilot models for Cooper Mountain and Mountain View, the following planning and training programs are necessary:

1. Interpersonal relations and theory of organizational structure.
2. Design and direction of independent study.
3. Diagnostic and remedial techniques.
4. **Counselling theory and techniques.**
5. Preparation and implementation of instructional programs (both content and process).
6. Teaching strategies.
7. Analysis of teaching and learning.
8. Writing and use of specific behavioral objectives for course development and evaluation.

9. Teaching systems.
10. Staff organization for improved instruction.
11. Curriculum designs.
12. Theories and techniques of team teaching and flexible scheduling.
13. Theory and utilization of peer and cross-age teaching.

The program will be designed to meet a wide variety of training needs. About thirty participants will be people recruited into teaching through early entry programs and from sources other than traditional training institutions. Some of these participants will be students involved in cross-age and peer teaching. About thirty of the participants will have one year's experience in the theory and planning of differentiated staffing. These people will receive advance training and will serve as trainers for new personnel. The remaining ninety participants will consist of experienced and inexperienced teachers who have completed traditional teacher training programs.

Staff Resources Needed

The anticipated training staff will include authorities such as:

1. Dr. Fred Fosmire, psychology department, University of Oregon, who has worked with the first pilot school staff for the past year in the areas of inter-personal skill development and organizational development.
2. Authorities in the preparation of course materials based on behavioral objectives.
3. Dr. Alan Spanjer, education department, Portland State University. Dr. Spanjer is director of **student** teaching and intern program and is an authority in the areas of teaching strategies and evaluation of instruction. He has worked with District #48 personnel for the

past five years in the development of teacher induction programs and supervision of instruction.

4. Dr. James Wallace, MAT program,Reed College. Dr. Wallace has worked to develop early entry programs and to develop recruiting and training programs for personnel from areas other than traditional teacher training institutions.
5. Wes Tolliver, clinical professor on joint appointment with School of Education, Portland State University and School District #48. Mr. Tolliver works in the area of analysis of teaching and developing teaching strategies. He is coordinating the early entry program and student teaching programs of Portland State University with School District #48.
6. Other consultants and authorities from the community as required by the training group.

Evaluation

An instructional program based on behavioral objectives is self-evaluative. However, we are concerned about measuring the success of the program as related to student attitude and commitment in addition to those specified in the behavioral objectives. We will use an environmental description survey to assess these factors. The results can be compared to base line data which have already been collected for the 1968-69 school year and will be collected for the 1969-70 school year.

We will use NEA TEPS Evaluation to assess the attitudes of teacher-student-community members relative to the way the model was generated. Agencies such as Teaching Research from Oregon College of Education and Northwest Regional Laboratory will be contracted to evaluate the student product.

PROPOSED TRAINING PROGRAM

Differentiated Staffing Project 1970-71
Beaverton Schools

1. Weeks of training program - 7 weeks each school:

Aloha	7
Mt. View	7
Cooper Mt.	7

2. Number of participants (includes trainers and trainees):

Total 150

3. Experienced and inexperienced participants:

	Exp.	Inexp.	Trainers
Aloha	50	30	30
Mt. View	35	10	
Cooper Mt.	20	5	

OTHER MATERIALS OF INTEREST

Beaverton School District #48, *Initial Proposal Request for Grant*, Beaverton, Oregon, 1968, 17 pp.

Fitzgerald, Ronald J. and Frizzle, Donald B., *A Proposal on Differentiated Staffing*, Amherst, Massachusetts, 1968, 18 pp.

Shaker Heights City School District, *A Staff Study of Role Differentiation*, Shaker Heights, Ohio, 1969, 5 pp.

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DIFFERENTIATED STAFFING CONFERENCE

Geneva, New York February 26-28, 1969

I. THE CONFERENCE ON STAFF ORGANIZATION

A conference on new staffing patterns in elementary and secondary schools was held February 26-28, 1969, at the LaFayette Inn, Geneva, New York. The participants who represent school districts and organizations in central and western New York met with Fenwick English, Project Director of the Temple City (California) Differentiated Staffing Plan, to discuss procedures in building and operating new models of staff organization.

The conference was sponsored by the Educational and Cultural Center of Onondaga and Oswego Counties, Syracuse, New York, and the Genesee Valley School Development Association of Rochester, New York. ECCO and GVSDA, two of the sixteen Regional Supplementary Educational Centers of New York State, are studying school staffing patterns that identify and use the varying competencies and talents of teachers to make the instructional program responsive to the needs of individual students and accountable to the community.

II. THE NEED FOR DIFFERENTIATED STAFFING

Advocates of differentiated staffing feel that the traditional school organization, the teacher isolated in a classroom with thirty children for forty-five minutes per day per subject, is not flexible enough to prepare children to handle the continually changing conditions they find when they leave school.

English pointed out that this traditional organization happened almost by accident and was not based on any research that validated it as the best way to teach children. One hundred fifty years ago the Boston Graded School had to group its children. They did it by age, and textbooks followed the pattern.

School organization continues to be based upon the assumption that all children of the same age perform on the same level. The teacher knows that this is not true, but there are few resources or expertise to help her do anything about the individual differences in her classroom. All she can do is start at the beginning of the book in September and continue through it until the end of the year.

If teachers in the traditional school structure were to give pre- and post-tests, the outcomes would have little influence on the instructional program. The organization prevents modification of instruction to meet individual needs.

Two things are needed to change the school to make instruction begin at individual performance levels:

1. Flexibility to identify and use talent.
2. Flexibility in the use of teacher and student time.

Time and talent are the essence of differentiated staffing. The Temple City Model is an example of a school organization that has both types of flexibility.

III. THE TEMPLE CITY MODEL

In 1965, the Temple City School District and Dwight Allen, then at Stanford University, and now at the University of Massachusetts, developed a proposal for the Kettering Foundation. The next year, the Foundation awarded the District $ 41,840 to devise a rationale for a differentiated teaching staff, and District Superintendent John Rand activated a project steering committee to make recommendations through him to the Board of Education. In 1968, Kettering augmented the grant with $15,000.

After four years of study and planning, Temple City now has a staffing hierarchy and an auxiliary personnel support system. Salaries up to $25,000 are possible through an efficient use of staff talent.

The District encourages multiple entry to teaching by hiring personnel for any level of the hierarchy. Minority group adults who have had little preparation can enter the auxiliary support system and go up the career ladder to full-time teaching. Curriculum and research specialists are employed at advanced positions.

The Temple City hierarchy for professionals begins with the Associate Teacher who may be a first-year teacher with a B.A. degree or a teacher intern. He has full-time teaching responsibilities.

The next level, the backbone of differentiated staffing, is the Staff Teacher. His qualifications are equivalent to those demanded of teachers in the usual system, but his role is different. Housekeeping and clerical duties are assigned to aides, and the teacher has more preparation time to make his teaching effective. He must be able to diagnose student difficulties, deal with a variety of student populations and be a specialist in at least one mode of instruction, large group, small group instruction, or independent study. The Staff Teacher is responsible for the application of curricular innovations which have first been evaluated by the Master Teacher.

The Senior Teacher must have leadership qualities and demonstrate that he can get things done through other people without being autocratic. Unlike the Associate and Staff Teacher the Senior Teacher has sophisticated skills in diagnosis and in all three modes of instruction. He works with his teachers to utilize their strengths and eliminate their weaknesses.

The Master Teacher makes professional decisions on functions and outcomes, decides which materials and personnel to use and plans the operation of his own system but does not administer it.

Temple City Hierarchy

	Status	Teacher-Classroom Responsibilities % of time	Tenure	Salary
Master Teacher Doctorate Degree	12 month, 22 days vacation	25%	no	$15,500- $25,000
Senior Teacher M.S. Degree	10 month	35%- 50%	no	$14,500- $17,500
Staff Teacher B.A. Degree	10 month	100%	yes	$ 7,500 $11,000
Associate Teacher B.A. Degree	10 month	100%	yes	$ 6,500- $9,000
Auxiliary Support Personnel	10 month		no	

All personnel, including the superintendent, the principal, and the school nurse, teach; all teaching is organized on a flexible schedule to permit increased contact with students.

At Temple City, professionalism is evident at all levels. All teachers can be actively involved in formulating academic policies and all are responsible for regulating their profession.

Teacher evaluation is two-way. Senior and Master Teachers evaluate the performance of Associate and Staff Teachers. In turn, the advanced role of the Senior and Master Teachers are regarded as service and leadership functions to the Associate and Staff Teachers who evaluate the relevancy of the functions. These evaluations are coordinated through the school's prime decision-making bodies—the Academic Senate and the District-Level Academic Coordinating Council.

The Academic Senate at each school, composed of Senior Teachers with the principal serving as chairman, legislates specific school policies. All members have equal power. It has a standing Committee to deal with faculty separation between subject areas, ambiguity of roles, absence of consensus as to staff expectancies, etc. Each Senate prepares an operating budget for its school and submits it to the Superintendent of Schools and the District Business Manager for analysis. Upon approval, the budgets are administered by the Senate.

The District Director of Personnel is assisted in screening applicants by representatives of teachers in the subject area under consideration. Recommendations are sent to the Board of Education from the Senate through the Superintendent.

Disagreements between Senate members go to the District Academic Coordinating Council which is made up of principals and Master Teachers with the District Superintendent serving as Chairman. In addition to this appellate function, the Council is important in decentralizing district level decision-making.

Under this kind of organization, the principal's role changes. He no longer acts as a non-academic administrator. At Temple City, he gives over the details of running the school, supplies, equipment, etc., to the School Manager, a graduate of a school of Business Administration. As the chairman of the Academic Senate, the principal becomes expert in group dynamics, sensitivity and human engineering.

Since the differentiated staffing needs specified pre-service and in-service training, Temple City has become part of a consortium composed of the Claremont Graduate School and the University of Massachusetts. Qualified personnel coming out of this program train other staff members.

The training program includes sequences for consultation with field groups in the major curriculum areas, classroom methods, behavioral studies of organization, auxiliary personnel training, relevant innovations in education and model building, micro-teaching methods of evaluating colleagues, and evaluation of the program.

Objectives for the staffing plan are based on statements of specific needs of learners, the teacher, the society and the community the graduate will enter. Temple City conducted a five-year follow-up study comparing the schools' goals and the actual accomplishments and behaviors of graduates. There was little correlation.

Teachers now being hired by the district will enter the differentiated salary schedule. Current employees have the option of remaining on the traditional salary schedule or converting to the differentiated pay system. Those changing to the latter will advance faster than they normally would over the short term, but the differentiated staffing schedule has a lower salary ceiling. When transferring, no one takes a loss in pay. See Section O. The factors that teachers weigh when they make the decision are their proximity to retirement and confidence in their own ability.

When describing the differentiated staffing plan, English emphasized that Temple City had spent four years in developing their educational plan. Although the plan appears revolutionary, it did not take form quickly or easily. It was built by involving the professional staff at all levels and having them go through many difficult and sometimes frustrating steps in designing and organizing the model.

Further details of the Temple City organization and financial plan are described in Section V, in the Appendices, in the booklet, "New Careers in Teaching—Differentiated Staffing, the Temple City Story," and other articles listed in the Bibliography.

IV. ASSUMPTIONS CONCERNING DIFFERENTIATED STAFFING

The Conference made certain assumptions when considering staffing.

A. There may be little relationship between school and learning and between teaching and learning.

Without pre-testing to find out where the child is at the start of a sequence of instruction and post-testing when the sequence ends, there can be no assurance that there has been learning. Abilities should be identified on performance levels. Under the usual school structure, there is little the teacher can do about individual differences even if she knows what they are.

Much of the present school activity for learning has little relevance to life outside of the school. Coleman* indicates that two-thirds of a child's learning takes place outside school.

A necessary assumption in planning staffing patterns is that the teacher is the most important component of the teaching-learning process, and by using her more effectively, the school will have better instruction.

B. Differentiated staffing can bring about a structure of teaching based on outcomes.

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*Coleman, James S. and others. Equality of Educational Opportunity. Washington, D.C.: U.S. Gov't. Printing Office, 1966.

Teacher tasks are numerous and demand varying degrees of competency. A flexible internal school structure based on learner needs can identify and allocate staff talent, place teachers on the staff hierarchy according to their performance and not for length of service or units of study completed.

The responsive organization modifies itself and its staff to make teaching relevant to the needs of students and the changing talents of teachers.

C. Research supports differentiated staffing.

Support for the differentiated staff comes from the social and behavioral sciences, human relations and group dynamics. Doctoral dissertations on organizational analysis and current books from management and from schools, such as the University of Chicago, Carnegie Institute of Technology, and the Massachusetts Instititute of Technology, report on the responsive organization that moves from the authoritatian to the democratic by involving its members in decision-making.

V. REQUISITES FOR DIFFERENTIATED STAFFING

The Conference identified certain requisites for differentiated staffing.

A. The goals and expectations of students, the community and the school must be stated in performance terms.

If graduates of the school are not achieving stated goals, a committee of representatives of the community, the school, and the students on the high school level should examine the goals and the school's methods.

In order to assess the graduates' preparation for family life, vocation, handling issues, etc., the committee should set up performance indices. For example, "good citizenship" could be stated in terms of frequency of voting, joining groups, participating in civic affairs, obeying the law, etc. If the indices set up by the committee are not acceptable to critics or dissenters, they should be asked for alternatives, variables or possible solutions. A followup, such as Temple City's five-year study, should be made to discover whether there is any correlation between stated goals and the graduates' achievements and performance.

When stating goals and performance indices, assumptions cannot be made about the future. Since the future can be only hypothetical, the school program should emphasize cognitive skills which enable students to think through problems. For example, teaching a child to analyze and think through controversial issues aids in teaching the cognitive process as well as making school relevant.

The study of the total school program or system may focus on differentiated staffing with its inherent instructional flexibility as a method to achieve the school's goals. Or the study may result in choosing some other means.

B. In developing and implementing staffing patterns, teachers and staff must be involved in policy-making, curriculum, evaluation, screening of applicants, defining of roles, appointment and subsequent assessment of leaders and colleagues.

Teachers do not want to be administrators, but they do want to function as instructional professionals. When they are involved in decision-making, their decisions reflect the expertise of the specialist and result in better instruction. If involving teachers in the system and creating a career leader makes teaching attractive and keeps good teachers, instruction will improve.

Involvement will increase differentiated staffing's validity for the teachers who define and evaluate roles and performances. For example, the Master Teacher makes professional decisions concerning materials and the operation of his system. He and the Senior Teacher are responsible for assisting the Staff and Associate Teachers who evaluate the services and the assistance they receive.

There must be an organization to provide these services and functions and a structure to allow all to be heard. This is accomplished at Temple City through the Steering Committee meetings which all staff teachers may attend; the Academic Senate, composed of the principal and senior teachers elected by their colleagues; and the Academic Coordinating Council, composed of the District Superintendent, Master Teachers and principals. These groups deal with policy-making, curriculum, screening, evaluation, hiring, firing and other details.

C. Teachers and staff must define roles and outcomes, assume responsibility for self-regulation, assess performance and be accountable for outcomes.

Participation in the definition and evaluation of professional tasks and regulation of performance builds in accountability. Professional regulations, performed by and for teachers, is the crux of the growth of the teaching profession.

Teachers who take on responsibility and are willing to be accountable like differentiated staffing. They can make decisions and do not fear losing seniority or tenure.

Teachers who do not like differentiated staffing have high security needs and expect more guidance and leadership than others. On the differentiated staff they are forced into unfamiliar situations where they must live with involvement, participation, group consensus, and group dynamics while always having to press for performance and competence.

Evaluation of colleagues and their services must be done on the expectancy-relevancy level of the job description, not on the basis of popularity. The Temple City evaluation sheet is mostly cognitive. (Appendix B.) The Associate and Staff Teachers make up the job descriptions and define the services of the Senior and Master Teachers who do not have tenure and can be removed.

Staff and Associate Teachers' roles are also defined by a committee. Everyone must be responsible and accountable. The evaluation sheets listing required performances and responsibilities are available to anybody in the school and community.

If teachers are to define criteria, responsibilities, and qualifications, they must select colleagues to serve on the team to write criteria. The team may have a consultant from the subject area.

D. The professional aspects of teaching must be defined and reserved for the professionals with semiprofessionals forming a support team.

Diagnosis of student learning problems, prescription and judgment must be left to the professional teacher.

The Temple City teachers stated early in the planning of their program certain principles must not be violated or they could not support differentiated staffing, irrespective of the model.

1. Teaching must be the prime function of the professional, and there must be no quasi-administrative functions, such as consultant, supervisor, etc., to take teachers away from the classroom.
2. Advancement must be concommitant with expansion of the decision-making role.
3. Teachers must assume self-regulation of their profession--the assessment of the performance.
4. The school schedule must be flexible.
5. There must be an organizational structure which allows the appellate process.

For additional principles and "untouchables," see "Florida Schools," Sept.-Oct., 1968. A Special issue on Differentiated Staffing.

E. The differentiated staffing model must be based on flexible scheduling.

Differentiated staffing is only one part of an educational program which must include flexible scheduling, independent study modules and individualized instruction.

Although curriculum can be set up on traditional departmental lines, this may be a weakness.

The curriculum could be set up on a subject matter approach according to the goals relevant to larger groups or clusters, such as mathematics and science. Behavioral indicators should call for different subject area grouping than that of the present curriculum.

Study materials should be present in study modules which state performance criteria and allow the student to complete them at his own rate.

F. Procedures for explaining and selling new staffing patterns must be developed along with the model.

There will be criticism and resistance to new staffing patterns and flexible scheduling. The best communications, regardless of the size of the district, is face to face. For example, at Temple City, the president of the Teachers' Union asked that the Project Director be removed. When the two met face to face, they found their objectives were much the same.

A conference should be set up at the school with each parent and child about his new schedule. Temple City initiated the program at the junior high level. High school students were bused to the schools which had the new program, and the principal talked with the Student Council. The principal should involve the students and meet in open periods with them. The kindergarten and secondary teachers should meet and learn about each other's problems in teaching children at various ages and performance levels.

A good initial step is to have people of the school district examine other models, then define their own needs and build a model to meet them. When meeting, they must get the hidden agenda on the table by providing an atmosphere for the mutual exploration of ideas, and a climate with an absence of fear and an opportunity for continuing even after failure. The promoters of the new staffing plan cannot ride roughshod over people, but they should ask critics for alternatives that can be tried in at least one school.

The teachers of a district should not be permitted to tell any school it can not try differentiated staffing---if the principal and teachers in that schools have done their homework and have come to a consensus. If 51% of the school's teachers want to try, they should not be stopped by the 49%. As professionals, the minority should agree to try or go elsewhere.

Experience shows that in setting up the differentiated staffing pyramid, school board members are easiest to talk with, the next easiest are teachers. The most difficult are administrators, especially principals. The latter are usually anxious and do not know how they can function in a new organization structured upon levels of competence.

Although a profession should never be governed by popular vote if there is to be progress, implementation of new staffing organization requires commitment by the staff, the principal, the superintendent and the Board of Education. If the superintendent has a different value orientation than that of the Board, the superintendent should resign or get a new Board.

An idea may fail because it was not a good idea. A good idea can fail because it was handled or implemented incorrectly. Differentiated staffing is muffed by administrators more than by anyone else because they know so little about human behavior.

G. An organizational structure to provide change strategies and tactics must be designed and built into the model.

With the introduction of any new system there will be frustrations and a change in interpersonal relationships. There must be a committee such as Temple City's Academic Senate to deal with doubts, ambiguity of roles, the absence of consensus as to staff expectancies, etc.

Since the principal will have to change his whole mode of operation, he will usually feel more frustrated than the teacher. It will not be easy for either the principal or the superintendent, if they are dynamic administrators, to consult and work with committees to solve problems.

When initiating differentiated staffing, the district should choose a school which has stated that it wants to be a pilot school. The principal should work with those on his staff who are most interested and least resistant and have them set down criteria in broad terms and think through flexible scheduling as a requirement for differentiated staffing. The district should ask them to submit a proposal describing specifics, a budget, and the resources needed to make the plan work.

Administrators may have to accept tenure to implement the program. This problem and others, such as curriculum, can be tackled later.

When building the new model, the designers should build in opposition in order to know how to meet it. Criticism or resistance may not occur at the rational level. If the response is emotional or illogical, it should be treated as being sincere until opposition comes back to the rational. If criticism and resistance is turned off, it will go underground where the administrators cannot deal with it. At Temple City, the Steering Committee served as a place where all teachers could express themselves. (Appendix C.)

There are other procedures which can be built into the model. Matthew Miles in Innovation in Education points out that an administrator cannot change a whole system at once because the energies of the system perpetrate it. To bring about changes, he should take people out of the system and create a little microcosm, the "we happy few syndrome," representing all levels of the organization to work on problems, get a consensus, and then take on the linkage problems.

At Temple City, the Steering Committee formed a Linkage Task Force (see Appendix C) to anticipate problems. They were paid to brainstorm every type of problem and type of resistance and were successful in answering questions and working with teachers. As a result, the greatest doubters are now the greatest supporters. The problems occurred where they had not expected them--with administrators. The Task Force had not prepared the administrators for their non-voting role in meetings with teachers. There were occasions when the Project Director and the Superintendent had to deal with principals in the old autocratic way. It was the only system they could understand.

Another procedure for effecting change is alleviating what Miles calls the "input overload." People who work on special projects while holding down their regular job need a safety valve, such as Temple City's Steering Committee where gripes are aired.

H. Procedures for developing and implementing new staffing plan must take a problem-solving stance and avoid negotiations and restrictive legislation.

There is no problem-solving in negotiations as the participants wear labels, administrator or union, and are apt to take up positions which they cannot abandon.

It is preferable to send a model based on basic principles to the teacher organizations and unions asking if they can agree on the principles. It should be made clear that the idea is not being presented for a popularity vote. After getting some consensus and feedback, a meeting can be arranged. When opposing sides meet, they often find they have the same objectives, and they do not let the labels of administrator and union speak for them.

Any law which mandates a teacher-student ratio will prevent efficient use of staff. For example, the California Teachers Association had a law passed that aides cannot replace teachers, and the thirty students to one teacher ratio must be maintained to receive state aid. The bill limits flexibility by requiring that 60% of salary funds be used in instructional salaries. This tends to protect ineffective performances.

I. Differentiated teaching staff will bring significant changes in teacher training.

There must be emphasis on human relations, sensitivity, group dynamics and human behavior training. There is a brief description of Temple City training programs at the University of Massachusetts in Section III.

Inservice training can go beyond content skills to include sensitivity training, consultants in preparing learning packets, or modules such as Unipaks, and field trips to other schools to see programs. A teacher that goes on a field trip has more impact on his school than does the administrator who may be already fatigued with the continuous demand for change.

Smaller colleges may be able to adopt their teacher training programs to specific needs more easily than can large ones. For example, Temple City asked Claremont to build courses around the job descriptions in its Differentiated Staffing Plan.

Temple City teachers receive sensitivity training on a voluntary basis, and attend group dynamics workshops. This is especially important for principals as they must learn to work in a collegial manner. They can no longer dominate or be autocratic.

J. All professionals on the staff, including the principal and superintendent should have direct pupil contact.

As the teacher goes up the hierarchy, he spends a smaller percentage of his time with students, but the quality of his contact should increase. The Master Teacher who spends only 20% of his time teaching, may actually see more students in large group instruction, perhaps three hundred per session, than the staff teacher who sees thirty students in each of five periods in a day. Differentiated staffing keeps the Master Teacher as a teacher while giving him expanded influence over the total instructional program in his area of competence.

Temple City has increased its teaching staff by requiring that all professionals, including the principal, the superintendent, the school nurse, do some teaching on a regular basis.

By using the total staff in counseling, it is possible for a professional on the staff to know each child intimately as an advisor. Information on the child is available to other teachers. Temple City assigns 17 students to each staff member, including the nurse. There are two guidance counselors for 650 students.

K. Students must have both free time and counseling available to them.

Under flexible scheduling, students must have free time, an opportunity to make choices, and a place where he can go to study or talk to other students without being under the direct supervision of a teacher. This may be unsettling to some teachers, but it is a needed safety valve for a child who is under pressure and needs more time than the average to complete his study modules.

For the child who continually makes bad choices, wastes time, and does not get his work done, there must be helpful guidance and a place where he can go for special work and assistance, and Temple City has resources centers for the various subject areas. The staff insists that during independent study time, the child in a particular resources center must spend his time on the instructional objectives defined in the modules or learning achievement packages. He has a choice on how or what he studies, but he must work toward the objectives.

One of the problems with flexible scheduling and independent study is to keep ahead of students. During the summer, Temple City mathematics teachers wrote modules to keep the fastest students busy for three months. Twenty students went through them in three weeks. These students go on to higher studies in the same area.

L. The differentiated staffing model must provide for specialization, new roles and new positions, on both long and short-term basis.

The staffing model should include a position for the specialist, the means for abolishing the position when the need is past, and the creating of another special position when a new need arises. For example, if a computer specialist is needed to establish a special program, a term contract can be made with him. When he has completed his task, a contract can be made with another specialist for a particular need such as specialized inservice training.

The model should create new positions to utilize special talents of the staff or to relieve them of tasks not related to teaching. If the principal is burdened with paperwork and the running of the school, he can hire a school manager for taking care of supplies, equipment, bus service, custodial problems, arrangements for meetings, etc. This relieves the principal to work with the instructional program and assume professional leadership.

M. The differentiated staffing model must provide for innovative programs.

By building a system of self-renewal, the system can keep up to date and relevant to the times. The Master Teacher has this responsibility, and he should continually press for hard data to validate assumptions concerning the program and curriculum. Questioning school and community goals and the graduates' achievements should be a continuing process. The staff should rewrite job descriptions each year to accommodate changing functions and needs.

N. Differentiated staffing requires adequate resources--materials, equipment, facilities and clerical assistance.

Assistance must be concrete. Modules and materials packets should be prepared prior to the beginning of the school year, and they should be provided in adequate quantities. At Temple City, requests for materials tripled. During the first two weeks of the school year, 500 students burned out nine prints of a filmstrip.

Students should have the opportunity to do most of their work in school where they have adequate, professional help. Resources centers for each curriculum area should have media--films, slides, tapes, which are teacher controlled. Uniform procedures should be worked out for borrowing in order to avoid confusion among students and teachers.

The general library should not be under the control of teachers or any particular curriculum area, but should contain general materials under the supervision of a professional librarian.

If the subject area and the resources center tend to become departmental islands, steps should be taken for more interdisciplinary communication. The organizational structure of the school should include committees, such as an academic senate, which can deal with this situation.

Teachers must have office space where they can plan, work with other teachers and meet with students. The individual teacher under flexible scheduling will no longer have his own classroom. Instruction areas are designed to work for large-group instruction. Temple City provides a teacher a 6' x 8' open space, a file, a desk and two chairs, laid out in the center of a large room.

O. The financial structure must be cost-effective with functions defined and outcomes assessed.

In the beginning, the differentiated salary schedule will cost more, but costs will not escalate. Most school salary schedules now include payment of increments based on length of service or units acquired, even though they may have little to do with performance.

The differentiated schedule ties salary to function, although the salary should be negotiable based on demonstrated talent, competency, cost of living, etc. The teachers themselves write job descriptions, define functions and evaluate performances. Any increments given are based on performance outcomes. Teachers should be paid an adequate salary as professionals, and should not receive any extra amounts at special rates for special jobs.

When introducing the differentiated schedule, it should be made clear to teachers that no one will take a loss in pay.

At Temple City, a teacher now making more than the Staff Teacher (up to $11,000), would transfer to Senior Teacher. If that is not possible, he would go on the differentiated schedule as an "intern Senior Teacher," with a salary increment.

If teachers are given a choice of salary schedules and a year to decide, there will be less anxiety. Teachers in Temple City have a year to decide whether to go on the new schedule and to return to the old schedule if they wish, but at the end of the year, they lose this option.

All teachers coming into the system should be hired under the differentiated schedule, and the regular salary schedule will dwindle. Under the differentiated salary schedule, some teachers may be overpaid and some underpaid for a time, but this problem will eventually disappear as teachers retire or resign. Temple City, with an expected growth of 2% per year, expects their differentiated plan to become self-supporting after four years. Otherwise the School Board would not have accepted the plan. Currently, in Project Year I, the cost per pupil is $632.00, lower than the average in California.

Temple City is now hiring associate teachers to replace staff teachers who have left. The difference in salaries provides money to add auxiliary personnel and to pay the higher salaries of specialists. Nevertheless, a school district should not attempt to hire everyone coming into the system at the Associate level. As long as there is a shortage of specialists , it should be prepared to pay them top salaries. Those who have demonstrated outstanding performance as specialists will always require higher salaries than generalists. Temple City's first Master Teacher was brought in at a salary higher than that of the Superintendent, who had to convince the Board of Education that it should be done.

Degrees and courses completed should not influence salary, except in perhaps the initial payment.

P. Procedures for assessing the program must be built into the model.

Parents and students can be given attitude inventories. Questionnaires asking specific questions and asking for opinions and comments will give teacher and staff reactions. (Appendix E.) Student performance and graduate achievement of the school's goals will be the definitive test. Temple City believes that three years will be adequate for assessing their goals and their program.

VI. SUMMARY

Before attempting to differentiate staff, a school must study its own needs and operations. The community and the school must decide what it wants its graduates to be and state these broad principles as goals.

With goals translated into performance terms, the school can plan a structure to help students meet the goals. If the goals are not met, the school must change its organization to meet the objectives. By describing the school's product (the achievement of its graduates) in measurable terms, the school becomes accountable to the community.

Before designing a staffing model, the responsible persons should research the literature, study the field, and plan what they want to do. At each step they must ask if the planned organization will help the graduates of the system reach the stated goals. By studying objectives and defining the present and the new system being considered, the school may find their present one is best and is functioning well. They should never assume that anything different is better than what they now do.

But there must be criteria for deciding if the system is functioning well. Well for whom? All students? All staff? How about the child in the ghetto? The dropout? The status quo may not be the best.

By identifying teachers' talents to meet specific needs of individuals, the school can offer instruction in a variety of modes. By providing a career ladder to make teaching attractive, more good teachers will stay in the profession, and good teachers improve instruction. Differentiated staffing is a process for making the school responsive to the students, the teachers, and the community.

APPENDIX A: CONSIDERATIONS FOR DIFFERENTIATED STAFFING

General Questions

1. What is the problem?
2. What are all the solutions available?
3. Why this solution over all others available?
4. How will we know when we have solved the problem?

Specific Items for Consideration

1. Differentiated staffing is a solution; it is a means, not an end.
2. Differentiated staffing may not be differentiated salaries; one is a strategy and the other is a tactic.
3. All staffing patterns rest on certain assumptions about the function of school, its social validity, relationship to learning, etc. What have we assumed?
4. A needs assessment should accompany and be part of any proposed model of staff differentiation. Three suggested foci for assessment input:

    a. nature and needs of the learner
    b. nature and needs of society/world
    c. needs of the profession

5. Model variations may include:

    a. curricular models
    b. learning models
    c. teaching models
    d. organizational models (structural)
    e. process models

6. The creation of new personnel roles is dependent upon what assumptions the innovators include in their rationale; problem identification and validity and focus of change efforts.

7. Consideration of change strategies and variables:

    a. community - analysis of/relation to success in change
    b. staff - analysis of values, attitudes, other major variables which affect change readiness
    c. Board - structure, membership, conflict rate over major issues

   - d. Administration - special problems
   - e. Teacher Associations - incorporating the association viewpoint

8. The fallacy of the "all or nothing" approach.

9. The "piecemeal" vs. multiple front approach .

10. The "refinement of the status quo" approach.

11. The "negotiating" approach; choosing up sides in advance .

12. Consideration of the "temporary sub-system" change strategy·

    - a. related problems - "linkage"
    - b. the "we happy few" syndrome
    - c. input overload

13. Other related aspects to consider - flexible scheduling, team teaching, curriculm, role changes, facilities, financing, funding, training, recruitment, decision-making, evaluation, in-service, student involvement, materials/media, related institutions (SDE, USOE).

14. The "hidden" agenda.

APPENDIX B

Enclosure: 3
Agenda: 6
Feburary 24, 1969

TEMPLE CITY UNIFIED SCHOOL DISTRICT

Progress Report
Differentiated Staffing

To: M. John Rand
Superintendent

From: Fenwick W. English
Project Director

Re: Collegial Evaluation at Oak Avenue

Background

One of the keys to differentiated staffing and the creation of advanced teacher roles was the idea of two-way or collegial evaluation. In the past, teacher evaluation was decidedly one-way. Teachers were evaluated by principals, supervisors, and consultants. Often these personnel were generalists, knowing little about the subject or skill area for which they were passing judgment on the teacher specialist.

Teachers working on the differentiated staffing project accepted that much of evaluation is subjective. The question is not whether it is subjective or objective, but since evaluation is the key to growth who is to perform the task? Who is most qualified? Teachers designing the differentiated staffing project felt that since the advanced roles were created as service functions to staff teachers, the services would be best judged by those receiving them. Thus, the Senior and Master Teacher's job descriptions were written by staff teachers. The feelings and perceptions of staff teachers must be considered because they evaluate those occupying the advanced positions. The relevancy of these roles is therefore controlled to the largest extent by the staff.

Collegial Evaluation

The Project Director worked four months with Senior Teachers in developing performance job indicators for their roles. In turn, the Senior Teachers met with their staff teachers along the way to obtain a working consensus on role definition and performance indicators. These were then compiled into an evaluation instrument which is currently being piloted at Oak Avenue. Both the procedures and the instrument are considered tentative and will be refined over the next few months by staff feedback of both process and content (see staff evaluation sheet).

Tentative Procedures

Instructions to Staff Teachers:

1. Complete the evaluation of your Senior Teacher; checking the appropriate blank which indicates your judgment of his work thus far.

2. If "unsatisfactory" or some other term is checked to indicate dissatisfaction with the area you are obliged indicate what the problem is, in your opinion, and what could be done for improvement to occur. Naturally, the more specific you are, the greater the value of the evaluation.

3. The function of evaluation is to promote growth, not to engage in a punitive exercise which, unfortunately, has been traditional practice to date. Teachers have a real opportunity to show how it should really be done.

4. Evaluation should be signed.

5. The Senior Teacher must collate the evaluations of his staff teachers into a summary document with his own comments to the Academic Senate within two weeks following completion of the evaluation process. The Academic Senate, in turn, also may comment and advise the Senior Teacher on the basis of his staff evaluation. Discrepancies in judgment are reconciled by the Academic Senate.

6. A final report of the evaluation will be in writing and released to the staff showing all comments and suggestions from each involved party. At this time, minority reports may be submitted in person or in writing to the Academic Senate for their consideration.

7. The Academic Senate may, at any time, refer the evaluation to authorities elsewhere in the District, or outside the District, for referral and comments. All such reports must be made available to the staff.

8. The evaluations will become part of the Senior Teacher's file.

9. Procedures and instruments used in the evaluation are considered tentative. Teachers will be asked to render judgments as to the appropriateness, clarity, and fairness of both procedures and instruments (see last sheet in evaluation packet).

(Check appropriate quarter)
First ___
Second ___
Third ___
Fourth ___

TEMPLE CITY UNIFIED SCHOOL DISTRICT

Staff Evaluation of Senior Teacher

RESPONSIBILITY	PERFORMANCE Satisfactory	Unsatisfactory*	Not Applicable
I. Is a functional teacher on a regular basis?			
A. Classroom teaching occupies at least 60% of a regular teaching load.	___	___	___

Comments ____

____

II. Is an effective leader of a teaching team of teacher specialists?			
A. Holds individual teacher and team teacher conferences to discuss and/or demonstrate the following (at least 4 times per semester).			
1. New roles and teaching techniques in the 3 basic instructional modes: large group; small group; individual-pupil teacher.	___	___	___

Comments ____

____

2. Strategies for enrichment for the rapid learner.	___	___	___

Comments ____

____

*This rating automatically demands comment

RESPONSIBILITY	PERFORMANCE		
	Satisfactory	Unsatisfactory*	Not Applicable
3. Techniques of working with slow learners.	___	___	___
Comments____			
____			
4. New curriculum concepts.	___	___	___
Comments____			
____			
5. Different teaching strategies than those presented in classes.	___	___	___
Comments____			
____			
6. Development of performance learner objectives.	___	___	___
Comments____			
____			
B. Conducts periodic consultations (not less than twice a semester) with each teacher of the team to include the following:			
1. Assessment of professional growth as determined by both parties.	___	___	___
Comments____			
____			

*This rating automatically demands comment.

RESPONSIBILITY	PERFORMANCE Satisfactory	 Unsatisfactory*	 Not Applicable
2. Survey of pupil progress determined by group testing at the end of each grading period.	____	____	____
Comments____			
____			
3. Determines individual teacher satisfaction with the program.	____	____	____
Comments____			
____			
C. Visits each teacher in the classroom (at least 1 visitation for each teacher) at least every six weeks followed by a conference for the following purposes:			
1. To assess instructional appropriateness of the content and accompanying strategies to the objectives of the total social science program and/or lesson objectives.	____	____	____
Comments____			
____			
2. To assess appropriateness of student response to learning objectives.	____	____	____
Comments____			
____			

*This rating automatically demands comment.

RESPONSIBILITY PERFORMANCE

Satisfactory Unsatisfactory* Not Applicable

D. Meets with the staff at least once a semester to discuss the job functions of the resource, staff, and Senior Teacher. Such job functions are based upon the changing perceptions of the team of the job to be done and are acceptable to the following people and/or groups of people.

1. staff teachers in area
2. resource teachers
3. Academic Senate ____ ____ ____

Comments____

____

E. Meets with each staff member and/or team to discuss the approaches to objectives of each unit or study and the degree to which they are relevant to the program using cognitive skill objectives as the rating criteria. ____ ____ ____

Comments____

____

III. Guides, leads, and coordinates the subject area team.

A. Conducts weekly staff meetings to discuss curriculum, Senate, and departmental matters. ____ ____ ____

Comments____

____

*This rating automatically demands comment.

RESPONSIBILITY	PERFORMANCE		
	Satisfactory	Unsatisfactory*	Not Applicable
B. Coordinates and resolves program objectives, priorities, pupil grouping, teacher talent and interest in scheduling to the satisfaction of at least 70% of the staff teachers.	____	____	____
Comments____ ____			
C. Communicates effectively to the Senate and to the staff the feelings, opinions, and ideas of the staff. (He is not bound to agree, nor committed to the viewpoint of the majority necessarily but does communicate all views).	____	____	____
Comments____ ____			
D. At least 10% of the total cognitive skill areas per year will be operationalized in measurable students outcomes.	____	____	____
Comments____ ____			
E. The Senior Teacher will present to the staff not less than once a year an assessment of the program by (a) an outside specialist from private industry or the University, and (b) the Oak Avenue Academic Senate. The assessment must include the following:			

*This rating automatically demands comment.

RESPONSIBILITY	PERFORMANCE		
	Satisfactory	Unsatisfactory*	Not Applicable
1. Relevancy of the program based upon specified and validated learner objectives.	____	____	____
Comments ____ ____			
2. Appropriateness of program dollar and resource priorities in realizing the objectives in #1.	____	____	____
Comments ____ ____			
3. Assessment of the degree of colleague satisfaction and harmony with the program and each other, including the Senior Teacher.	____	____	____
Comments ____ ____			
4. Plans for the utilization of personnel in varying capacities in keeping with their academic backgrounds, their responsiveness to the program at Oak, and their instructional effectiveness as determined by the Senior Teacher and the Oak Academic Senate.	____	____	____
Comments ____ ____			

*This rating automatically demands comment.

RESPONSIBILITY	PERFORMANCE		
	Satisfactory	Unsatisfactory*	Not Applicable
IV. Supervises effective operation of the English Resource Center.			
A. Assesses materials in the resource center based upon: 1. Record of student usage and student opinion. 2. Teacher critiques and suggestions. 3. Critique by auxiliary personnel in the program.	____	____	____

Comments ____

____

B. Communicates possible uses of resource materials for the staff teacher in written papers to the staff, at meetings and in conferences with the individual teacher or team.	____	____	____

Comments ____

____

Comments of a general nature (suggestions):

____

Signature of Staff Teacher

*This rating automatically demands comment.

TEMPLE CITY UNIFIED SCHOOL DISTRICT

Staff Survey - Collegial Evaluation

Please respond to the following questionnaire:

Question Yes No

Content

1. The evaluation content accurately described the responsibilities of the Senior Teacher. ___ ___

Comments ____

____

2. The evaluation content "fairly" described the activities of the Senior Teacher. ___ ___

Comments ____

____

3. The evaluation content only partially described a Senior Teacher's functions. ___ ___

Comments ____

____

Process

4. The process of the evaluation seems to be a fair way of assessing the Senior Teacher. ___ ___

Comments ____

____

5. I am generally satisfied with the evaluation process. ___ ___

Comments ____

____

Question Yes No

Overall

7. My overall reaction to the evaluation is: (check only one)

a. Enthusiastic ___
b. Satisfied ___
c. Neutral*(ambivalent) ___
d. Less than satisfied* ___
e. Dissatisfied* ___

*Please indicate recommendations for improvement.

Name______________________

Area_______________________

APPENDIX C: TEMPLE CITY PLAN - ORGANIZATION AND OPERATION

The guiding agency of the Temple City Project is the Steering Committee, composed of administrators and teachers, the latter elected by their colleagues. The Committee meets once or twice a month and all the staff are invited to attend meetings to express their viewpoints. The provision for expression of minority opinion has been a part of the project throughout its development and operation.

When the Steering Committee realized that it was too large to be effective, it broke itself into task forces. The Teacher's Analysis Task Force asked all teachers to keep two-week frequency logs of work activities to show time spent on clerical duties, professional diagnosis, etc. They were asked how they would like to spend their time. The Committee used this data in designing the model.

After the staffing model was developed, a "Shredding Committee" of paid critics from the district worked during the summer. They revised the model and presented it in September to the total staff in an inservice meeting. Small groups went over the plan and used instruments the Committee had developed for assessing it. Students were included in the meetings. A two-day workshop for responding to the model included gripe sessions.

The Task Force classified each gripe by type, number and force. For example, the staff did not want Senior Teachers delineated along subject areas. They did not understand their selection, the screening process, and whether or not the Senior Teachers were to be administrative "patsies." As a result, the Collegial Evaluation was done over.

The Linkage Task Force met with each individual staff member, teacher to teacher. The teachers' elected representatives had defined criteria, responsibilities and qualifications and had done the model planning. Presidents of unions, teachers organizations, and teachers from various levels had participated. It was the teacher's plan - their model.

In addition to it's planning functions, the Steering Committee at Temple City provides a place where hostilities and pressures from the rest of the staff can be aired and discussed. It acts as a safety valve for the members, and meetings sometimes become gripe sessions. Teachers not on the Committee who feel the elected members are not representing their interests can come to the meetings and see administrators voted down. For example, at one meeting they saw the Superintendent of the District leave in frustration after being voted down three times.

At first the Steering Committee made the classic mistake. The Superintendent called the meeting, invited the entire administrative council and one teacher for every 500 students to be elected by the staff. When the meeting convened, the teachers asked the Superintendent if he were serious about teacher involvement, and, if so, why teachers were elected on a representative basis while administrators were not. It was obvious to teachers that the vote would be uneven. The administrators went outside and chose their own representatives.

Under this organization, if things came to a formal vote and the split were teachers against the administration, teachers would have it. But it has never happened that way. Issues have never divided the Committee along these lines. On each side there have always been administrators, teachers and unions.

It took the representative arrangement to convince teachers that they were to be included in decision-making. The school board, the school administration, the unions and teachers have members on the Steering Committee which represents the entire school organization. The Committee allows participants to examine issues as they are, abandon fixed positions, and engage in problem-solving and creative brainstorming. Such activity is not, and cannot, be done in a negotiating context.

The Steering Committee represents the "we happy few" syndrome. The Project Director works with the Committee in the collegial situation and then has to go back to making authoritarian decisions in the old system. When teachers complain that he makes decisions without consulting them, he has to explain that in order to move some people in an autocratic system, he has to make autocratic decisions.

There are continuing linkage problems. One administrator, a principal, was angry because he was not allowed a vote in the Steering Committee and was represented by an elected representative. When he was asked to attend a meeting, he informed the Project Director that when "I attend a meeting, I either have a vote or receive a consultant fee of $250 per day." This principal had to be persuaded in the old autocratic way. The Superintendent ordered him to be at the meeting, and he was. The principal understood that way of doing things--he was still operating in the old autocratic system.

APPENDIX D

TEACHER RESPONSES ON THE TEMPLE CITY PLAN

At the request of the Academic Senate, the Project Director interviewed each staff teacher and asked:

1. What major aspects are considerable improvements over the traditional program?
2. What aspects are weaknesses of this program?
3. What is your most immediate concern regarding the program?
4. What things have you learned during implementation that would help other schools contemplating a similar change?
5. If you had to do it over again, would it be worth it?
6. Have your relationships with students changed? If so, how?

This was merely a short-term attitudinal survey of the staff. The teachers' responses included the following:

1. Major strengths:

   Greater student enthusiasm for school, more movement in study modules, hence, few discipline problems due to boredom.

   Absence of pressure resulting in greater friendliness between students and teachers, more relaxed, collegial atmosphere.

   Students have opportunity to explore and achieve at their own rate.

   Increased materials and equipment for students, resources centers.

   Small group instruction provides opportunity to interact with students, know them better.

2. Weaknesses:

Some students will not accept responsibility for their own work.

Lack of adequate clerical help. (The latter criticism resulted from incorrect use of an increased amount of clerical help. Teachers failed to discriminate between types of auxiliary personnel functions. They were asking resources center aides to do clerical work rather than have the general teacher aides do it. The resources center aides assist teachers and students in the center and do not have time to do typing, mimeographing, etc.)

More paperwork, record-keeping, more work generally.

Harder, "like first year all over again."

Intrastaff communication more difficult.

Lack of continuity of program.

Large-group instruction needed improvement.

School day too long (The teachers had increased the school day voluntarily without increase in pay. This was to allow students to do their work in school where resources were available to help them).

The favorable responses and feelings outnumbered the unfavorable, and the aspects prompting the latter can be remedied. Specific information on surveys should be obtained from Fenwick English, the Project Director, Temple City Differentiated Staffing Plan, Unified School District, Temple City, California.

A Temple City Master Teacher describes the major strength of the Temple City plan as being an open program, conducive to its own reconstruction, capable of making adjustments on an ongoing basis, with flexibility of time and talent to give immediate response to student problems.

APPENDIX E

QUESTIONS FROM CONFERENCE PARTICIPANTS TO FENWICK ENGLISH

What caused the school district to come to this (differentiated staffing) conclusion?

> A myriad of things. Unhappiness over perennial teacher problems, specifically, an open hearing over a teacher dismissal. The incompetence of the administrator was clearly demonstrated before the public and the staff.

Who at Temple City identified the educational problems?

> Nobody. We did it in the classical way. We had the grand solution first. But then, step by step, we changed roles, including administrators, and began to realize a Master Teacher is better qualified to make certain judgments than the administrator-principal.

What do you call the program?

> Temple City Educational Program--of which differentiated staffing is a means to an end.

Did you find something else generating while going through differentiated staffing ? What would you call it?

> Temple City Educational Program

What was your hypothesis of model - the relationship between school and learning?

> The relationship between something we call school and something we call learning? I am not convinced they are the same. I am not convinced there is a relationship between "teaching" and "learning." Without pre- and post-testing, we cannot assume there is learning because there is teaching.

> We must assume the teacher is the most important component and that by using the teacher more effectively and efficiently, we will have better instruction. But we cannot assume that anything different we do is better than what we do now.

In terms of the teaching-learning process, what do you see as the most significant contribution of differentiated staffing?

> A vehicle whereby identified teacher talent can meet the specified needs of the individual students in a variety of modes. Differentiated staffing as a vehicle is related to relevant objectives which must be specified, with specific outcomes.

In terms of the educational product, what do you foresee as the most significant contribution of differentiated staffing?

> No one specific outcome, rather a vehicle which permits greater effectiveness in reaching a host of teacher-student outcomes. Staff differentiation is a process for the realization of a more responsive organization to the student and to the teacher.

In terms of building teacher commitment and involvement, what do you see as the most significant contribution of differentiated staffing?

> Participation in the definition of professional tasks and the regulation of performance tasks. This builds accountability into the staffing pattern of the teacher.

Was modular scheduling the product of differentiated staffing or vice versa?

> Like the chicken and the egg, you need both together. The learning model is popular but a difficult place to start. The curricular model is another place to start, and both differentiated staffing and modular scheduling is necessary to make the model effective.
>
> The superintendent of the seventh largest school district in the United States wanted Temple City's model without flexible scheduling. He wanted a salary schedule - a tactic.

Do your teachers now have responsibility?

Yes.

Have your teachers reached stage of accountability?

Senior Teachers have more, because they execute. Not all teachers get responsibility and accountability or decision-making. Teachers that like differentiated staffing do not mind losing seniority and tenure being put aside.

The superintendent and principal formerly had to learn how to do everything from obtaining supplies to stating criteria for alloting budget. Now they talk of priorities, the product. Now, departments are striving for change in order to deserve the budget.

How many good teachers did you have for differentiated staffing?

We used the MTAI (Minnesota Teachers Attitude Index), which is supposed to discriminate between authoritarian and democratic. There was no correlation on this and the desire for differentiated staffing. But MTAI could prevent elementary and secondary teachers from making accusations about each other.

How many teachers do you have?

Temple City, now in Project Year I. We have 1 Master Teacher; 3 Senior Teachers; 173 Staff Teachers; 3 Associates at present. Staff in the district have first shot. At the end of the training position, all positions are open and they may compete with people from outside. The union backed it. They wanted more pay for additional responsibility.

Where do Associate Teachers come from?

The normal attrition rate of the district - 25 new per year, $6,500-$9,000. Why do they go to Temple City as Assistant Teachers? They could get more elsewhere, but the salary goes up to $9,000 three or four years earlier than elsewhere on a normal schedule. Most teachers when leaving are

Class II, Step 2, B.A. plus 17 units, mostly women leaving due to pregnancies or husband transferring. They usually have teaching as a second job.

Who was most frustrated, new principal or new teacher?

Principal.

What was one over tension towards change?

Not much. The pressure on teachers to improve is from teachers and students, not administrators. They are beginning to see specific needs. Nobody wanted more supervisors, and Temple City describes its Senior and Master Teachers as being of service to teachers - not to supervise. The teachers can refuse the services. They know a Senior Teacher must do her job - she has no tenure. Administrators have their services described, and the staff expectancy - relevancy level part of the job description is rated by the teachers. Not on popularity. Every teacher selected by staff is not a leader.

Innovative programs may call for new staff differentiation. How can you provide for this?

By building in a system of self-renewal to insure continued change. This is the function of Master Teachers. By continually pressing for hard data to validate assumptions, by rewriting job descriptions each year based upon changing perceptions of hierarchial functions, by the staff. Should be the best way of keeping the model up to date and relevant, assuming our assumptions on which the model is based do not change radically or school is in constant process of validating those assumptions.

Is three years enough for assessing your goals?

Yes. We can do it in a shorter time if we know what we are about.

Have you any comments on differentiated staffing in conjunction with "a school within a school" set up?

A natural.

What did you get from professional organizations?

We were endorsed by the California Teacher's Association, and The American Federation of Teachers. We did not use a negotiating council because the A.F. of T. would have bombed them. In the middle of competition between the Union and NEA, Temple City teachers chose the Steering Committee route, which had a representative from each on the Steering Committee and paid by the Steering Committee.

What other districts are innovating with differentiated staffing?

Kansas City, Missouri; two inner city schools.

Beaverton, Oregon; partial implementation at one new high school.

Temple City, California; one complete model school; one on partial differentiation.

Sarasota, Florida; intensive study and staff improvement; plans for implementation.

What universities lead in studying the concept?

1. University of Massachusetts, Amherst

2. Florida State University, Tallahassee

3. Claremont Graduate School, Claremont University, Claremont, California

4. SUNY at Buffalo, School of Education (Inner City, Buffalo)

> We wanted a strategy. He wanted to apply a model developed in a six-school environment to a huge system. Doing such a thing could create a monster that would devour you.

If put in elementary school rather than middle school, would you put into departmental basis?

> Not departmental for the upper grades. I would call in a more subject-matter curriculum organization than the whole-child approach.
>
> We could do this by asking what are minimum expectations of students when they graduate from Temple City, agree upon performance indices of these goals, and then see what subject areas they fall into rather than saying to math teachers, "How are our goals - which ones come in math, or science, etc." We should say which goals are relevant to larger groups of curricular areas. We are having Temple City citizens look at behavioral indicators of minimum goals we have developed.

Are your teams set up in teams of curriculum or do they cut across curriculum areas?

> They exist along traditional subject matter areas of the curriculum--one of the model's weaknesses. It assumes the validity of the present curriculum.
>
> For example, math may not be a subject for all time. I have little faith in the way the curriculum pie is now cut. Perhaps we should have teachers of communications rather than English, of art, etc.

What do you call professional?

> Professional responsibilities of the teacher are:
>
> (1) diagnosis
> (2) prescription
> (3) judgment
>
> Future schools should probably have one-third professional, two-thirds paraprofessional.

APPENDIX F: HOW NOT TO DO IT

Report by
Eric Smith, President, Teachers' Association
Greece, (N.Y.) Central School District

The principals proposed differentiated staffing to teachers at a series of district meetings. The only groundwork laid or information given was Dwight Allen's article on the Temple City Plan, in the January, 1968, "Phi Delta Kappan", which teachers received the morning of the meeting.

The teachers felt they should consider the idea, but they asked for weeks of study for this type of far-reaching reorganization and recommended more discussion between administration, teachers, and organizations. The teachers welcomed the philosophy that they be involved in all stages of the design and organizing process and the professional decisions concerning it. But they felt they could not make recommendations without more information.

There were many letters and meetings - none of which went anywhere. There was agreement only that Differentiated Teaching Staff (DTS) should be discussed.

Teachers resented the pressure on them to make quick decisions and the administrations effort to get them to accept a philosophy without understanding or investigation. As a result, a questionnaire produced an overwhelming "no" against implementation at this time, but the teachers stated they were willing to study it. DTS was withdrawn from negotiation.

The DTS Committee recommended: (1) a committee of teachers, administrators, and Board members study DTS, (2) job descriptions be written, (3) all available literature on differentiated staffing be obtained. The President of the Teachers' Association and the Superintendent met and decided to form a research committee. Each teacher received a copy of the committee's report. The superintendent said only that he would be willing to talk about it.

The Teachers' Association president concluded that DTS should involve many people at all levels, and not be part of negotiation.

FILMS AND VIDEOTAPES

FILM

"Differentiated Teaching Staff," a 28 minute color film narrated by Dwight Allen, Dean of the School of Education at University of Massachusetts and Chief Consultant of the Educational Professions Development Act, United States Office of Education.

Film discusses a new approach to teaching.

- The present concept of a teacher
- Retaining outstanding teachers
- Changing concepts of teacher assistance
- Identifying differential teaching responsibilities
- Using unique teacher talents
- Use of "outstanding" teachers
- Part-time staff
- A model for differentiation

DIFFERENTIATED STAFFING

VIDEO TAPES

"Insights and Implications for Statewide Implementation of Differentiated Staffing." by Marshall L. Frinks	This tape concerns itself with: Strategies for statewide consideration for differentiated staffing.
"The End of the Knowledge Monopoly." by Dwight W. Allen, Dean School of Education University of Massachusetts	This tape concerns itself with: Development of new kinds of programs to end the knowledge monopoly - Illustrates the changing role of the teacher.
"An Overview of Differentiated Staffing (1) Nationwide." by Donald Sharpes	This tape concerns itself with: Description of facts on national statistics level. Research projects of N.E.A., state and national level.
"Differentiated Staffing, Cabbages, (2) Kings, and Other Things." by Ronald J. Fitzgerald	Differentiated Staffing not separate entity. Related to many aspects within a school. This tape related to individualized instruction.
"Going to the Moon is Getting Closer to the Home." by Dwight W. Allen	This tape concerns itself with: Using the widest possible range of alternatives for differential staffing.
"Strategies for Implementing Differentiated Staffing." by M. John Rand Questions to Mr. Frinks & Dr. Rand	This tape concerns itself with: Some important ingredients of change.
"Temple City, California: A Case Study." by M. John Rand, Superintendent Temple City Unified School District	This tape concerns itself with: A description of Temple City Model
"The Implementations of Differentiated Staffing on Certification." by William C. Gaige Responses by Sayre, Uhler and Lloyd Kline	This tape concerns itself with: Social Theory, Sociology of change in education.

"The Implications of Differentiated Staffing for Teacher Education."
by Kevin A. Ryan
Reactions and Responses by
Arthur W. Eve, James Cooper and
Kevin Ryan

Questions and Reactions to "Temple City, California: A Case Study."
by M. John Rand, Superintendent
Temple City Unified School District

"Alternative Models for Differentiated Staffing."
by Peter Wagschal

"Developing Career Ladders for Para-Professionals."
by Altron Gentry

DEFINITION OF TERMS

1. Experimentation in Instruction

This refers to an open spirit of inquiry concerning better ways of improving instruction. It implies a willingness to examine alternatives, including organizational arrangements and new materials. It is an attitudinal set concerning change in general.

2. Concept Centered Curriculum

The "knowledge explosion" has rendered the idea of a stable pool of "best" knowledge obsolete in curriculum development. Curriculum developers are organizing curriculum around themes, or theories and concepts rather than isolated factual data. This term reflects this trend and implies a change in teaching emphasis.

3. Small Group Study

Eight to ten students working in groups on joint endeavors become a chief mode of instruction in flexible-scheduled schools. Although not new to education (committee work) small group study implies teacher participation as an active concomitant to in-depth learning.

4. Differentiated Staffing

The clustering of certain responsibilities associated with teaching around specific types of teaching roles. For example, a teacher who has responsibility for the development of curriculum and the translation of educational research into practice would be called a Teaching Curriculum Research Associate. This teacher along with instructing children in the classroom would assume leadership responsibilities for the development of curriculum.

5. Behavioral Objectives

Objectives which are stated in observable student responses are called "behavioral". Observable student responses are said to be indicative of learning, since learning cannot be directly seen. The utilization of objectives of this type provide direct clues for evaluation of the instructional program, and clarify teaching procedures to the extent that they can affect those objectives.

6. Continuous Progress Curriculum

This term refers to a student advancement by progress, rather than by time served. It connotes a breakdown of artificial barriers which block educational progress and thus hamper learner motivation. The curriculum is therefore seen in a series of "behavioral levels: which can be measured, rather than simply the division of arbitrary time units or grades.

7. Flexible Scheduling

The arrangement. of a student's day or week into different combinations of periods is called modules. The flexibility of this type of schedule means that each student can receive a unique combination of modules based upon his needs, interests, and abilities. With large numbers of students, scheduling of this type is usually done by computer.

8. Student Independent Study

Students can learn by themselves without the direct supervision of a teacher. It may be said that the only real learning is self-learning. Independent study implies that students can be taught to learn how to learn, and that self-learning is the most lasting and produces the most changes in behavior. This concept is in harmony with child growth and development to the extent that each student grows and benefits from his independence. This requires steady teacher participation and judgement as to when and how much children can accept and learn from this instructional mode.

9. Team Teaching

This refers to a "pooling" of teacher talents to increase the depth of knowledge pertaining to subject matter content in instruction. Implicit in the term is an understanding of a more sophisticated an integrated approach to classroom instruction through a delineation of instructional responsibilities.

Arizona Teacher, January, 1971. Permission to reprint granted by the author.

DIFFERENTIATED STAFFING:
THE SECOND GENERATION

Peter B. Mann

Differentiated staffing, like happiness, means different things to different people, and the controversy over it seems destined to intensify before it is resolved

While school boards, administrators, and teachers across the nation continue to debate just what differentiated staffing is, it is being turned into something else again in the Mesa public schools.

Fenwick English, director of the Mesa, Arizona, project which is financed by the U. S. Office of Education, calls it "second generation" differentiated staffing. He also calls it a potential answer to demands for "accountability" in education, and a sort of in-profession "performance contracting" aimed at raising individual student achievement.

Whatever it is called, he says, Mesa's version of differentiated staffing--if it works--will be a model for fundamental reform in the public schools.

To understand the second generation, English says, it is essential to understand the first. He is as well qualified as anyone to explain differentiated staffing. Before taking the reins of the Mesa project in the summer of 1970, he spent five years directing the much heralded, pioneering effort at staff differentiation in the Temple City, Calif., schools.

In the simplest terms, he says, differentiated staffing is the specialization of teaching functions, a division of labor which allows each teacher to do what he or she does best in helping students to learn. But differentiated staffing is much more than that.

One thing it is not, English says, is a disguised version of that old teacher nemesis, merit pay. He concedes that some school boards and superintendents have tried to use it that way, reinforcing teacher animosity and undermining the concept's promise, but the two simply do not equate.

Merit pay rewards teachers adjudged, in some ill-defined manner, to be superior to their colleagues, even though they perform the same duties and have equivalent training and years of service. Differentiated staffing, on the other hand, provides additional pay only for teachers assuming special responsibilities; it does not discriminate between equals.

"A merit pay plan," English says, "doesn't alter the structure of the school. It leaves it intact...But differentiated staffing does change the structure. It changes the roles and responsibilities of teachers, and it pays them more for the assumption of additional duties.

School Structure

The key to understanding differentiated staffing is to analyze--and see the need for changing--the structure of the school, which has roots extending deep into the history of American public education.

Essentially, the public school of today replicates a structure begun in 1848 when the first graded school was established in Quincy, Mass., English says. That school was founded on the assumptions that a single teacher could teach all subjects, that a student's mental age matched his chronological age, and that all students shared the same learning needs.

The three basic components of a school, he says, are content, process, and structure. In the Quincy-style school, these components have been more or less constant. Now, because of all that has been learned about learning since 1848, they must be treated as variables.

Educators have recognized this need to some degree, English says, and many changes have been made in content and process. These changes, however, have been insufficient. While they have accommodated man's expanded knowledge and incorporated the use of new media, they have not affected the basic school structure.

"In most schools," he says, "now as over one hundred years ago, teachers do most of the talking and kids do most of the listening. Teachers teach, but children don't necessarily learn. Despite all the talk to the contrary, schools are still teacher-centered and teacher-dominated."

When he speaks of school structure, English means the way time, space, and staff are used. Historically the use of each has been characterized by uniformity: classrooms of the same size accommodating the same numbers of children; like periods of time being assigned for different tasks: teachers trying to "be all things to all pupils."

"The graded school," English says, "was a pre-scientific invention. Our educational fathers advocated it before the advent of IQ testing, before we really knew much about the vast differences in mental ability between students.... Our efforts have gone into making teachers aware of pupil differences, but forcing them to maintain their roles in a structure which was organized on the principle that such differences do not exist between children...."

Even in secondary schools, where the need for subject-area specialization by teachers has been recognized, English says that the specialization "has been organized ancillary to the main role of the classroom teacher as the person who can be all things to all pupils."

In other words, the school's structure--its allocation of time, division of space, assignment of staff--continues to focus on the education of students as groups rather than as individuals.

"Our instructional programs are dominated by teaching to groups," English says. "We have much literature on individualized instruction, and the need for it, but it is primarily at the theoretical level...."

While the theories are widely accepted, rarely have they been translated into successful practice. Most attempts to individualize instruction, in fact, have focused on reducing the size of the student group.

But smaller class size is not the answer, English says. It merely refines, rather than changing, a structure in which "teachers are too burdened with the shift of a group or groups to have much real time to individualize what they do with children."

Once it is recognized that children learn in different ways and at varying rates, it is only logical to adjust the school to these differences, using time and space flexibility and applying each teacher's special abilities where they will produce the maximum results in learning.

In practical terms, this means setting learning goals, determining what specific learning (and teaching) tasks are involved in reaching them, diagnosing each student's status and needs in relation to the goals, grouping students in constantly shifting arrangements (from independent study to large lectures) according to their needs, assigning teachers to teams which in toto are equipped to help students accomplish the designated learning tasks.

Differentiated staffing then, is a division of teacher labor to fit student requirements; a restructuring of school time, space, and staffing patterns so that the focus is no longer on teaching but on learning, no longer on the teacher but on the student, no longer on the group but on the individual.

The First Generation

Specialization is not entirely new to public education. School administrators traditionally have been assigned differing roles arranged in a hierarchy. Teacher specialization, however, has been almost exclusively on a horizontal plane, with all teachers playing essentially the same role but on varying grade levels or in different subjects.

Under differentiated staffing, according to English, teachers perform different tasks within grade levels and subject areas. For example, a team of primary teachers might include one who excels at diagnosing pupil difficulties in reading or arithmetic, another who excels at teaching the required skills, and others who can transmit concepts and influence attitudes toward learning.

When the Temple City experiment began five years ago, the basic approach was to reorganize teacher staffing by creating a "career ladder" to permit hierarchical staffing without freezing faculty in positions that would limit growth, fix rewards, and destroy morale.

The career ladder allowed the use of teachers and paraprofessionals in teams so organized that their numbers provided different services to students, with roles determined by the learning task at hand and the students' needs for mastering that task.

"The question then," English says, "was, 'Can it be done?'--not 'should it?' but 'can it?' " He believes the Temple City program has proven not only that differentiated staffing can be done, but that it should be done. Among several reasons, he calls particular attention to these:

- Teacher specialization improved learner achievement. "The greater the degree of specialization in the teaching of skills and disciplines, even in the elementary grades, the higher the achievement of the pupils."
- Changing teachers and groupings on a flexible time schedule did not damage the students' sense of security, as some feared. "We found teachers pretty insecure on many occasions, but not very many kids. In fact, sometimes teachers hid behind the kids. They would say, 'That's not good for the kids,' when what they meant was, 'I don't like it.' "
- There was "considerable success" in changing boys' attitudes toward school, largely because flexible grouping and scheduling made the program "more activity-based, with greater variety, more movement, increased stimulation."
- The program began in one school and now has spread to Temple City's other five, because it has been evaluated as highly effective, a major improvement.

With that record, why isn't Temple City's version of differentiated staffing simply accepted as a model for other school districts? Why is the second generation necessary?

Because, English says, the first generation was developed to spotlight teachers' strengths and buttress their weaknesses. "Now, we're looking for a pupil solution, trying to build a bridge between the teacher's functions and the pupil's needs."

While the career ladder provided a means of assigning different tasks to different teachers, it tended to result in a "rigid hierarchy" which assumed that certain teacher functions are always of greater importance than others, English says. Student needs, However, shift constantly, and the most effective teaching team would be one which could change accordingly.

In other words, the most important member of the team should be the one whose talents are most appropriate for the immediate task, and the hierarchy should be fluid, not fixed.

The Second Generation

The point of the Mesa project is to establish realistic student learning objectives and to devise a fluid arrangement of teacher roles to insure that the objectives are met. Although the project is one in a nationwide network funded by the U. S. Office of Education to develop workable methods of staff differentiation, it is unique in the approaches it will employ.

With an initial fifteen-month grant for $152,000 from USOE, the project began modestly enough. Three schools--Fremont Junior High, Holmes and Lincoln elementaries--were selected as the early testing grounds, because faculty members there voted overwhelmingly in favor of giving it a try.

Polling the faculties was only one of several steps considered essential to launching the project. Other essentials were the support of the district school board, Superintendent George Smith and his staff, and, perhaps most important, the cooperation of the Mesa Education Association.

If the project shows promise in the early stages, English says, USOE funding is expected to be extended to three years and the project is intended to encompass the entire Mesa school system (twenty-five schools, more than twenty thousand students) by the end of that period. Without the backing of the district power structure, and particularly the teachers, the chances of demonstrating promise would be nil.

An impressive array of outside resources has been aligned to help Mesa. Aside from USOE, English and his staff have access to guidance from the Center for Differentiated Staffing at the Claremont (California) Graduate School and the Southwestern Cooperative Educational Laboratory (SW-CEL) in Albuquerque, N. M. Arizona State University's college of education has donated office space to the project staff, which subcontracts with ASU for materials, services, and professional consultation.

At present, each pilot school is developing and refining its own version of the "fluid hierarchy" of teacher roles. Within each school, in fact, different teams use different techniques, adapting to the particular needs of the students and the special talents of the teachers and their aides.

For differentiated staffing to approach its potential for improving instruction, English believes, this variation from team to team, and from school to school, is necessary. Just as individual students have characteristics of their own, so do groups of students, teams of teachers, and school communities. The use of time, space, and staff, as well as the development of learning objectives and teaching techniques, must be adaptable to the special characteristics of both individuals and groups.

Variations make it impossible to capsulize what is happening in Mesa's pilot schools. English offers this generalization: A "universal process" (differentiated staffing) is being applied to all three schools, but each school's faculty is developing its own organizational plan, and each team is devising its own operational plans.

The significance of the Mesa project, however, may lie not so much in what is underway as in what is ahead: weekly monitoring of student progress by computer, and performance contracting by teachers.

Even with the most flexible use of time, space, and staff, English says, it is difficult to track, and respond to, the quick and constant changes that occur in the attitudes and achievements of the individual student. The project staff believes that a computer program could be developed to monitor these changes, translate them into needs, match the needs with teaching resources, and feed the team the information necessary to regroup and reassign on a weekly basis.

Preliminary discussions have been held with electronic data processing specialists at the Jet Propulsion Laboratory in Pasadena, California, and they are interested in developing such a program, English says.

Formidable as this challenge is, it pales beside that of introducing performance contracting by teachers. Performance contracting already has stirred a storm of controversy among educators, primarily because several school boards around the nation have contracted with private firms to guarantee that students reach specified achievement levels within given periods. (If the firms fail to deliver, the boards don't pay.)

Contracting with consultant firms outside the established framework of education carries obvious implications which have placed teachers and their professional organizations on the alert. They question not only the revolutionary effects on the profession should such practice become widespread, but the wisdom of linking learning inextricably with the profit motive. Heat has been generated, too, by charges that reading achievement successes under a performance contract in Texarkana resulted not from greater teaching knowhow but from test directed teaching. Now educators' eyes are staring (if not glaring) at Gary, Indiana, where for the first time the management of an entire public school has been turned over, on contract, to a private firm.

In Mesa, this threat to the organized profession will not exist, English says. There, performance contracting will enter through the front door, with the full knowledge and cooperation of the Mesa Education Association and the district's teachers. Working in teams, teachers will submit bids to the school board, competing with colleagues for contracts to accomplish specified teaching tasks with results measurable in terms of student achievement.

Mesa-Style Contracting

As English outlines it, the contracting process will start with the setting of an educational goal by the district school board, employing the expertise of district personnel or outside consultants to diagnose the status of the student group involved and to set reasonable objectives for a stated period of time. For example, achievement testing might reveal that fourth grade students in a particular school are reading at the third grade level, on the average; and attitude testing might reveal that some of the students dislike school, others come from deprived backgrounds, still others have language difficulties, and these are the major causes of their lagging achievement.

From this information, specifications would be drawn for raising achievement to grade level or higher for all these students within, say, a single school year. These specifications then would be set forth by the board in a "request for proposals" (RFP) issued by the board to district teaching personnel. Proposals submitted by teaching teams, English says, would summarize approaches to be taken; detail the staffing, materials, and supplies, facilities and supporting services required; and include a total cost figure. The board would award the contract on the basis of economy and the apparent soundness of the plan.

Once the contract was awarded, the teaching team would be in complete charge of the program, determining how to use its members' individual talents, how to spend the funds, how to divide the share set aside for teacher salaries, how to shift leadership roles, how to monitor progress, how to assess and meet the needs of the individual student.

Beyond this brief outline, the RFP approach to differentiated staffing has not been spelled out. It is so new, so experimental that English frankly admits that many formidable obstacles must be overcome and innumerable questions must be answered. As it was five years ago in Temple City, he says, the prime question today is not should it, but can it be done .

The Trial Runs

To find out, English and his staff are working with the Mesa Education Association and the faculties of the three pilot schools to develop procedures for implementing in-house performance contracting. For the first test, English and James K. Zaharis, assistant project director, have developed an RFP for submission to the Holmes, Lincoln and Fremont faculties. In turn, each faculty is preparing a proposal or bid to fulfill the RFP specifications. The three schools will be competing for a maximum of $20,000 in project funds. The dollars for the schools will be allotted on the basis of how well the schools have fulfilled the specifications and how well they argue their cases during the scheduled negotiations. This trial run will be strictly a project affair, with the project staff and one of the pilot schools as the contracting parties. English anticipates awarding the contract by the end of this January. Based on what is learned in the process, the Mesa school board will undertake a trial run of its own this spring, probably in March, English says. This effort, in which Mesa Education Association negotiators will participate to insure equal treatment of each bidding team of teachers, will be "a dry run using Monopoly money," he says.

If the RFP approach works, English sees it as a major step toward "building bridges between teacher functions and student needs," toward perfecting the differentiated staffing process. He also sees it as a means of accomplishing these related goals: transforming the teacher into a full professional with the necessary support to serve his client well, and insuring that schools are accountable for the progress students make and the money boards spend. If RFP doesn't work, it is likely to be because of the profound questions, not yet answered, which it raises regarding the economics, the politics, and the power structure of public education. Some samples:

- What happens to a teacher's annual contract if his salary depends on belonging to a team which submits a winning bid?
- What happens to professional negotiations on behalf of all district teachers by their organization?
- What role does the principal play when his school is being run by a series of semi-autonomous contractors?
- What happens to school financing when dollars are allocated on the basis of particular tasks rather than average daily attendance?
- What happens to teacher training and certification programs when specialists replace generalists?
- What happens to state-prescribed curriculums, textbook adoptions and tenure laws?

English readily concedes the answers to these questions--and many more--are unknown. But he believes answers can be found if the results of performance contracting are striking enough to make the search worthwhile.

Even if RFP proves unworkable, he is convinced that some way will--must--be found to individualize instruction in mass education, and differentiated staffing offers the best hope of finding that way.

"It's not a panacea," he says, "not a cureall. It is a process, and any process can be refined. Our experience shows that differentiated staffing is an improvement over the traditional process. Whatever form it ultimately assumes, the second generation should be even better."

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